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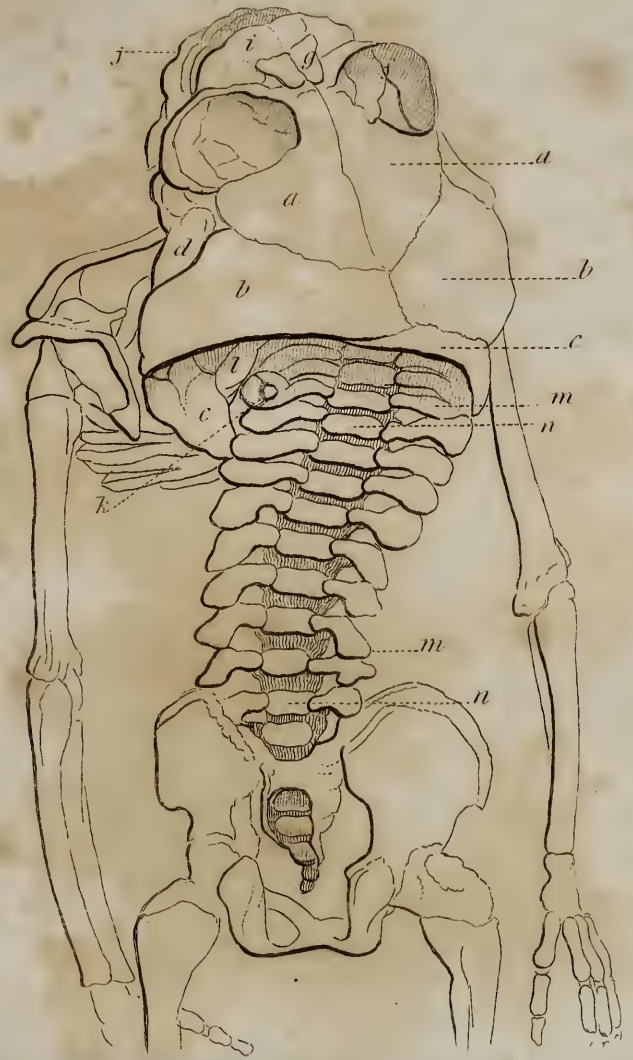

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MEDICAL MAGAZINE.

VOL. III. JULY, 1834. NO. XXV.

"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

SINCE the completion of the second volume of the Magazine, several important alterations have been made in the conduct of the work, some of which, at least, we trust will be considered to be improvements, by those who have favored us with their patronage. Among these, however, we cannot reckon the resignation of our senior colleague, which will doubtless be regretted by the readers, as it was by the editors and proprietors, of the Magazine. But we are happy to know, and to assure our friends, that the termination of Dr Pierson's editorial relations has not separated him, in interest or feeling, from the work which he contributed to establish; and that he is still a friend and proprietor of the Magazine, and will continue to make it the vehicle of his professional communications to the public.

His successors and colleagues address themselves to the continuance of the work, under assurances of aid from their medical friends, especially from those connected with public institutions, which encourage them to hope that, with faithfulness on their part, its usefulness may be increased and its patronage enlarged.

It has been thought best to divide the periods of its publication, and it will henceforth appear semi-monthly, on the first and fifteenth day of each month, the amount of matter

in every two numbers being equal, and in some cases exceeding that which has been hitherto found in each one.

By this arrangement our readers will receive their medical intelligence more frequently, and our numbers will still be sufficiently large to admit complete essays of respectable dimensions.

The Magazine has not changed hands, nor will it change its professional principles and character. It is still owned chiefly by an association of physicians, by whom it was established, without any view to pecuniary advantage, but for the single purpose of providing a respectable depot and vehicle for the medical facts and opinions of the times, a faithful record of the progress of medical science, and an independent commentator on the relations, rights, duties, and professional behaviour of medical men.

It is intended to devote the net income of the journal to the procuring of valuable matter for its pages, and to improvements in its style and execution, so long as pecuniary expenditures can render it more useful or agreeable to its patrons.

In pursuance of this design, we are now authorized to offer one dollar a page for all original communications which may be approved by the Editors, and published in the Magazine.

But we must depend chiefly, as we have heretofore, on the voluntary, unpurchased contributions of public spirited or ambitious physicians, who feel happy in an effort to add something to the stock of professional intelligence, or to aid in diffusing it in the community.

We therefore take leave to renew our calls on our brethren, far and near, to send us accounts of new or interesting cases, pathological facts, notices of epidemics, &c, with an assurance that they shall receive immediate and impartial attention.

The Magazine was originally dedicated to the profession at large; and, with many thanks to its members for a patronage which has enabled it to sustain itself thus far without pecuniary embarrassment, and, it is hoped, with some commendable degree of usefulness and spirit, we renew our appeal for their continued assistance, and encouraging recommendations.

J. B. FLINT,
E. BARTLETT, } Editors.
A. A. GOULD,

Art. I. — Case of Notencephale.

Communicated to the Medical Magazine by Charles T. Hildreth, M. D., M. M. S. S.

A strong degree of evidence, to a candid mind, that Nature's laws were framed by infinite wisdom, is gathered from the moral beauty of their arrangement, and the perfect harmony in their operation.

Notwithstanding the simplicity of the laws we know, when philosophically considered, yet it is only by the most patient investigation and careful study, that we can learn those of the animal kingdom, which regulate nature in the formation and development of man.

From the incapacity of our perceptive powers, few, very few, are the laws we elicit, in comparison with the vast and infinite number which altogether escape our notice. So boundless is this field, that the efforts of an expansive and vigorous mind are essential to its successful culture. How very necessary, then, that the fellow-laborers, who are so few in this great work, should at once proclaim each new discovered law, for the enlightening of the great mass, who, for the most part, pass their existence without recognising the most familiar of the many laws, whose principles of action regulate animal life.

It is very desirable that those who make researches in the science of mind or matter, should have the intellect and the courage, so highly necessary to establish their discoveries on the firm basis of rational demonstration; that the inquirers who candidly examine these laws in search of truth, may not fail to discern their endowment in nature. What, though the great mass should not, during the lifetime of the discoverer, examine or believe! The veracity of the system if founded in nature will remain, and posterity, as with Galileo, will acknowledge its truth. So the intellectual Spurzheim, though he lived not to see the system he labored to perfect fully acknowledged, yet future generations will see its accordance with the laws of our constitution, and will embalm his name with a rich and lasting glory.

It is not our fortune to speak of the discovery of a law of

nature, but of a departure in nature, from one universally recognised, and for which no physical cause whatever is known to have existed, whereby a rational explanation of the phenomena can be given.

When, as in the case before us, nature forsakes her accustomed course, and disclaims obedience in her operations to the laws of vegetative life, the result produced by such aberration is so very remarkable, that it stands out in bold relief, a proof at once, uncontroverted and apparent, of the beneficence of that power, which has constituted man as he is, both with reference to himself and all exterior agents.

This monster, so accurately represented by the engraving, was the product of a third impregnation in a married lady, aged thirtyfive, a resident in this city, the mother of two stout boys, the eldest aged four, the youngest two years. She has never miscarried. She enjoys tolerable health, though of a delicate frame and very excitable temperament.

As no moral cause for this anomaly was known to have existed, it may be well for us to record each sign of pregnancy, and every peculiar event, in any way connected with the case, at some length, to the better elucidation of the subject.

During gestation, she did not express any fears with regard to the *malformation* of the child, but thought it would soon die or have very delicate health, for reasons to be hereafter explained.

Having under her care an aged relative, who occupied one of the chambers of her house, she was under frequent necessity of visiting her. On these occasions she was in the habit of carrying the youngest boy, who was quite large, up and down stairs, supported on her abdomen ; this subjected her to much animadversion from her friends, but her ardent devotion to the child triumphed over all opposition. The fifth month was nearly or quite completed before she felt decided motion.

October 16th, she rode out of town, accompanied by her husband. On their return the horse ran with them, but no accident resulted, as the animal was soon stopped, and no one received injury. Soon after going to bed that night she felt the first motion. Her usual mode of calculation has been, to suppose gestation half complete on quickening. She was confined January 16th, just three months after. As the limbs and body of the child were perfectly developed, and very fat, and the nails and hair well grown, we are inclined to the belief that it was born at the completion of the eighth month, and that labor was thus early induced, from

the very painful distention of the uterus, by an enormous quantity of the liquor amnii.

The mother felt much solicitude, that the period of quickening should be so long deferred, and she soon became alarmed at the infrequency and imperfection, or rather singularity of the child's motions. Once or twice a week was as often as it was felt, and the sensation communicated to her, was more as if it fell, or impinged on some intervening substance between the child and the uterus, than as if it moved its limbs or body; — quite unlike the vigorous movements in utero, of her other children.

Touched externally, the uterine tumor felt equally tense; no inequality either of surface or solidity could be detected.

For these reasons, she occasionally gave way to despondency, and in her fears anticipated a puny child, that would die young.

During the latter part of the seventh month, her size so very rapidly increased, that the volume of the uterine tumor nearly or quite doubled. The fundus filling the epigastrium, so that the distention of the abdominal parietes was now more painful than either of her other gestations had been, at the full period. Her anxiety was therefore very considerable, on account of the suffering she thought inevitable, during the nine weeks yet necessary to complete her full term. The pain and distention exceeded all the cases we have known, excepting one of very large twins.

December 20th, in the night, her youngest child was taken ill and she rose hastily from the bed to render assistance, when she felt a very remarkable subsidence of the uterine tumor. Her expression was, she '*felt the child fall.*'

A very evident change in her form was certainly apparent.

The gradual subsidence of the womb during the latter part of the ninth month, so that the base is a little above the umbilicus, occasioned by the dilatation of the neck and contraction of the fundus, is an occurrence familiar to us all; but in this case, it took place very suddenly and was soon followed with severe paroxysms of pain in the right hip, particularly acute in the right sacro-iliac-synchondrosis. These pains continued for near a week with much severity, never fully going off, attended with nausea and vomiting of bile, constipation of the bowels, which was very obstinate, and very considerable tenderness of the soft parts at the seat of pain; pulse 110, hard, but small. The remedies used, were venesection, blister to the epigastrium, cathartics and copious lavements, which pro-

duced, by the fifth or sixth day, very free evacuations of dark green, bilious and highly offensive stools. Whereupon the patient rapidly regained her health and strength, but retained still the painful distention of the womb.

The os uteri was twice touched during this time; it was soft and flattened, would admit the point of the finger, but not so far as to feel the membranes; nor was there the least muscular contraction of the womb, even during the most severe paroxysms of pain. They were altogether false. The usual secretion of mucus which attends labor, was also absent.

January 1st, 1834, she was quite well of the attack, and continued in a state of tolerable comfort until January 9th, when, as she was walking across the floor about one P. M., she had a slight uterine pain, and found herself suddenly inundated with a very large quantity of liquor amnii. We were with her in about half an hour, and observed that the water had run in a broad stream across the floor from her chair, a large cushion on which she sat, and her clothes were completely drenched. We were informed that the floor had been once or twice overflowed and as often wiped up, to the amount of half a pailfull.

She was somewhat excited, by the enormous quantity of water, though she felt very much relieved from the load which had oppressed her, and was rather disposed to be cheerful. Touching, ascertained the mouth of the womb rather high up, the lips thick, but soft, the finger readily entering, no part of child or membranes could be felt. The pains were slight, and did not exercise the least dilating influence on the os uteri or the neck of the womb. On the occurrence of each pain a very considerable quantity of water was evacuated; but they gradually diminished both in frequency and severity, so that she retired at nine P. M, and passed a good night, sleeping soundly. In one or two days she again got about, feeling, as you may readily suppose, more light and comfortable than for a long time before. The motion of the fœtus was still very slightly felt once in a day or two. There was little or no uterine pain, and her size being very much diminished, she hoped to remain well until the first of March, the time she had set for her accouchement.

We once had a case six weeks before confinement where the chorion was ruptured, attended with regular pains, and the discharge of a large quantity of the liquor amnii, probably five or six quarts. Our explanation is, that this quantity of water was formed between the chorion and the amnion; the former being ruptured and the latter remaining entire, the woman in a few days got up and went her full time with a perfect child.

Two similar cases have come to our knowledge; and we explain a case in which an attempt by a *doctress* to procure abortion by rupturing the membranes was unsuccessful, in the same manner.

January 15th, labor came on at one A. M. Having so often disappointed her friends, she waited until 4, A. M., when she requested that we might be summoned. Before the messenger had left the house, the head had passed the external organs. So little pain did she suffer in the descent of the head — the presenting part being very small — that she was deceived as to its proximity. Occurring in the night and residing at the distance of a mile, half an hour elapsed before our arrival. We found the child born, completely enveloped in the membranes, with its lower extremities yet in the vagina. From the position, we concluded the birth had taken place with the face to the pubes. The membranes yet enveloping the head and body, were so entire and adhered so very close, that the least admission of air to the lungs was quite prevented. Two female friends were present, but they had offered no assistance. There was no pulsation in the funis umbilicalis. Discovering the monstrosity, we concluded not to attempt the inflation of the lungs; which would probably not have been successful for reasons, to be mentioned when describing the brain. The mother felt the motion of its arms beneath the membranes for fifteen or twenty minutes after birth.

On cutting the funis and making firm pressure on the abdomen, with friction, the womb was found imperfectly contracted on the placenta. By making gentle extension on the cord, a very considerable gush of blood followed and continued to flow, until the organ was firmly grasped by the hands, and great pressure made on the womb and its neck immediately above the pubes. Means which have always been successful with us in arresting that torrent of blood called a *gush*, after the removal of the placenta, and before its removal, when that could not be immediately accomplished, were then employed, viz., from the os pubis to the coccyx, the application of a folded napkin wrung out in cold vinegar, to be held there with firm pressure by an assistant; the hips raised on a pillow; the head very low, without pillow or bolster; the patient on her back. The pulse was very quick and feeble. A dram of ergot was now prepared by infusion, and given in two separate doses, without producing the slightest uterine contraction. After continuing pressure two hours, the pulse rallied; the hand was introduced, the

placenta was found firmly adhering to the fundus, where it was retained by an hour glass contraction, which we had great difficulty in overcoming, and only succeeded by strongly pressing down the uterus with our left hand applied to the abdominal parietes.

After placing our patient in bed she was comfortable. The first week she had a severe attack of irritable head — more properly called *irritable pain of the head*, for so very sensitive was the skin of the forehead, that the least touch would aggravate the pain to a most distressing degree. It yielded at length to opium, with submuriate, carried to induce a slight salivation; and in two weeks our patient was discharged cured.

The fœtus, a female, very fat and perfectly formed, except in the parts to be described, measured thirteen inches in length, and weighed three pounds one ounce, and bore evident marks of having entered upon the eighth month of its existence.

It had no neck; its face looked upward, slightly inclining to the left; from the manner in which the head was joined to the body, the ears were placed horizontally, and doubled forwards by the top of the shoulders. Its lower jaw was very prominent, between which and the middle of the sternum the skin was very full and prominently distended with fat.

The vault or arch of the cranium fell directly backwards and downward from the brows; its cavity was very small, containing less than an ounce of the brain; opening by a large occipital hole of a flattened oval figure, capable of admitting the points of three fingers, one side of the occipital hole being formed by the spinal column, which was open throughout its whole length. The bones composing the arch of the cranium were completely ossified, and covered with well grown hair, which descended as low as the base of the scapula, each side of the cerebral tumor.

The mass upon the back was at once recognised as the brain, covered with its appropriate membranes, through which the convolutions were very distinctly seen, large, and imperfectly developed. Beneath the membranes a small quantity of dark colored serum was diffused, lying mostly in the sulci of the convolutions, giving them a deeper shade than natural; the membranes also being of a deeper color than natural, the mass presented a purple hue, which was heightened by considerable quantities of coagula, interspersed through the substance of the brain. The very wide difference in color between the light purple membranes, with the engorged brain beneath, and the delicate flesh color of the skin, cannot be truly represented without the aid of coloring.

The external investment of the brain was composed of two thin, firm membranes, which could be separated from each other, though connected by numerous filaments. On removing the membranes, the brain was very distinctly seen to be divided into two equal hemispheres, the falx running obliquely down the back, from the right temple to the left sacro-iliac synchondrosis; this obliquity was parallel with a lateral curvature of the spine.

The skin, from the sacrum to the occiput, was split, or divided and turned aside, so that the base of the brain reposed upon the true bodies of the vertebræ, the spinous processes being cleft vertically and turned to the right and left. The investing membranes did not perfectly envelope the brain, that is, they were not continued under the organ, but terminated at the edge of the true skin.

At the circumference of the brain, where the membranes came in contact with the true skin and hairy scalp, there was the most perfect cicatrization of the two textures; so complete was the union that the brain was held securely in its place, and the smallest quantity of liquor amnii was prevented admission beneath. Although the convolutions were plainly seen through the membranes, yet on dissection they could not be separated from each other, owing to their delicate texture, so that we very much regret not having subjected it to a more perfect process of hardening previous to dissection, than the one which was adopted.

Distinct lobes were not made out. The portion of the brain where the convolutions were the least developed, was the anterior and upper part, lying above and slightly reposing upon the hairy scalp covering the frontal and parietal bones, as the child lay on its abdomen upon the dissecting table. The posterior edge of the os parietale of the left side and a very narrow spicula of the os occipitis on the right, formed the posterior boundary of the arch of the cranium — beneath which the brain dips down and enters the cavity of the skull through the large occipital hole; which is very accurately represented. (Plate II.)

In the left hemisphere the convolutions were more perfectly developed than in the right; but the texture of the brain was rather more soft; the substance of the brain was of a dusky red color, and its cortical portion but imperfectly shown; considerable quantities of coagula were diffused in the substance of the brain and between the convolutions; in each hemisphere was a cavity, supposed to be the lateral ventricle, filled with

coagula. These lesions were altogether incompatible with the continuation of life, and most probably occurred while the child lay enveloped in the membranes, immediately after birth.

From the very delicate texture of the brain in the fœtal state, and the organ in this subject being unusually soft, we were unable to make out any of the other grand subdivisions, so readily found in the healthy subject. Notwithstanding very great care was taken in the dissection, there was no cerebellum recognised. The brain below the occipital hole, which reposed upon the vertebræ, sent off no nervous filaments, and had no nervous connection with the spinal nerves below, so that these spinal nerves were without cerebral influence.

The length of the brain was three inches and one half, breadth three inches, height two and one quarter inches. After dissection, when carefully collected, it weighed three ounces.

The spinal column, as has been mentioned, was open throughout its whole length, (Pl. II. Fig. 1.) the spinous processes being split in the middle (vertically) and turned so far to the right and left as to form a straight line with the posterior face of the bodies of the vertebræ, making a flat surface on which the base of the brain reposed. The posterior face of of each of these vertebræ, corresponds to the anterior part of the spinal canal in a perfect vertebra. Bearing in mind the fact that each vertebra in the early fœtal state is double, being composed of a right and a left bone, united at the median line by cartilage, which in a very short time becomes perfect bone, we shall the more readily be enabled to comprehend the law of nature in the formation of the spine. In the sacrum there was an attempt by nature to form a canal that would have been completed in a short time; the processes at the sides of the bone were turned together backward, and united by cartilaginous union, forming a short tube, which still remains perfect and is seen in the skeleton; (Pl. II.) this canal of the sacrum was filled with a mass of reddish grey nerves, each nerve being invested with a tough membrane of great strength. There were in these nerves reddish grains, appearing like adipocire. They were also deposited between the nerves.

The posterior faces of the vertebræ, as has been remarked, were covered by well formed dura mater, which was continued up the vertebral column into the cavity of the cranium, which it lined throughout. A very small and thin membranous bundle of nervous fibres was seen passing down over five or six of the processes of the left side; but, other than this, no trace of spinal cord was seen. A few nerves were seen going through the

base of the cranium; one bundle appearing like the par vagum, passing the foramen lacerum. The petrous portions of the ossa temporalia in the base of the skull, were moderately large; and the internal ear was most probably perfect, with its appropriate bones, canals, membranes and nerves; the foramen auditorium internum of the right pars petrosa was large and well developed for the admission of the seventh pair of nerves — the left pars petrosa smaller and without any apparent foramen. The membrana tympani of both ears was perfect, well preserved, and is beautifully shown in the skeleton.

The optic nerves were large and well developed, the organs of vision being quite perfect.

The spinal nerves were large and well formed; when traced from the abdominal side of the spine through the intervertebral foramina, they were found to retain their full size, and pass directly into the dura mater of the spine, where they abruptly terminated, being firmly united with this membrane. These nerves were of a very tough, firm texture; the dura mater of the spine being not a hollow tube as usual, but a thick, firm, solid membrane. The nerves of the trunk, the upper and the lower extremities, were all perfect and properly distributed.

The organs in the cavity of the chest were perfectly well developed, and so were the organs in the cavity of the abdomen, with this exception, that the kidneys were united into one solid organ, having three ureters, two on the right side enclosed in one sheath, and one on the left, all terminating in the bladder; the right half of this kidney was twice the size of the left; its renal capsule was correspondingly large, and these were about half the size of the kidney.

It is said that in children who are born without cerebrum, the renal capsules (or glands) are extremely small and sometimes wanting, but in a perfect fœtus, where the cerebral development is good, they are larger than the kidneys; in this case they were about half the size of the kidney.

The organs of generation were perfect: there was, however, observed to be but one umbilical artery.

We claim your continued indulgence while we give the skeleton a tolerably accurate description.

The bones of the face, and some of the bones of the skull, were well formed and need no description. The frontal and parietal bones fell downward from the brows, were small and thin, but well ossified, and without fontanelles, as seen in Plate II. We would further observe that the bones of the head were ossified a little more than any other part of the skeleton.

We readily notice (Plate II, fig. 1) a double lateral

curvature of the spine in which the head participates, the inclination being from the left to the right, as low as the eighth dorsal vertebra, below which it extends from right to left as low as the last lumbar vertebra: this was an effort of nature, to keep the centre of gravity over the perpendicular axis of the pelvis, which would have been otherwise much thrown to the left, in consequence of the chest being inclined to that side. The ribs of the right side go directly forwards from the vertebræ almost in a straight line, being but little curved and quite long, otherwise nearly perfect; the left ribs are imperfect, and pass off directly to the left of the spine an unusual distance, before they are inclined forward to join the sternum.

There are no cervical vertebræ recognised as such.

This head, better developed than the case of M. Lallemand, is joined to the dorsal vertebræ, like every case of notencephale, by the bones composing the base of the skull. The four upper dorsal vertebræ are united into one, and thrown backward as you follow up the spine. Their spinous processes are like the other vertebræ, split and turned to the right and left. Those of the left, inclining far to the left, are seen at letter *l*, (Pl. II, fig. 1.)

During the last month of the fœtal state, the os occipitis in well formed subjects is composed of three separate bones, united by cartilage; in this case it is composed of six distinct bones similarly joined. Five of these bones united the head to the dorsal vertebræ, forming the principal part of the base of the cranium. The pars cuneiformis of the occiput is placed in the middle, joining the sphenoidal bone above, and the top of the first dorsal vertebra below. It is half an inch long by three eighths of an inch wide, of an irregular hexagonal figure. At its upper part it is united to the sphenoidal as just stated; on each side it joins the temporal, lower down on its sides it has the two lateral portions (occipital) of an irregular oblong form, and at its lower extremity it joins the top of the first dorsal vertebra. The lateral portions on each side, have the temporal above them, and the processes of the four upper vertebræ below them, their exterior ends are united to other lateral occipital bones, which are larger, and of an irregular rhomboidal figure; these last named may be known by having the letter *c* on each bone. They join the ends of the processes of the dorsal vertebræ at their inferior and the parietal bones at their superior edge or line of union, the anterior half forming with the parietal the squamous suture of the line of union, and the posterior half, the sutura dentata: each rhomboidal

bone at its anterior superior part is also united to the inferior posterior part of each temporal bone. The right rhomboidal is, on its posterior edge, joined to the sixth and last piece of the occipital bone, which is known by the dotted line running from the letter *c* to each figure; these rhomboidal bones with the letter *c* upon them, form a very considerable part of the line of union between the head and the trunk.

The sixth and last piece of the occipital is peculiar to the right side, it is three lines broad at the base, where it joins the processes of the seventh, eighth and ninth vertebræ, and rises past the lower end of the pars rhomboidalis and parietal bones to the sagittal suture, where it terminates in a point, so that the lambdoidal suture is confined to the right side of the skull. There is one small bone peculiar to the left side, situated on the spinous process of the ninth dorsal vertebra, not very much unlike the processus dentatus of the second vertebra of the neck, in a perfect fœtus at the eighth month; this bone is marked *k*, Pl. II., and called mamillary bone.

The pars petrosa of the right temporal bone, is well defined, as has been mentioned; the left is much smaller than the right. Other prominences in the base of the skull are not recognised except a very imperfect sella turcica.

The ribs on the right side (Pl. II, fig. 2) are nearly perfect, but rather straight. On the left, there is great deficiency and malformation, the first rib being but one third its usual length, united by a very long cartilage to the sternum; the second rib is wanting; the third and fourth only three lines in length, joined together, are turned backward and downward, and are united by cartilage to the fifth rib, which is very short, but quite broad and joined by cartilage to the base of the left scapula; the last named rib is given off from the middle of the sixth, seventh, eighth, and ninth ribs, which are united, and form an irregular flattened bone from their head to their middle, where they diverge, and are joined to the sternum by separate cartilages; the tenth and eleventh are amalgamated in their middle, but in all other respects are perfect; the twelfth is the only rib in a normal condition.

It gives us pleasure to acknowledge, in a particular manner, the valuable services of our highly esteemed friend Dr J. B. S. Jackson, in this delicate dissection; and the careful preparation of the skeleton. The examination was made in the presence of Dr Channing, Professsor of Midwifery, Drs Otis, Lewis, and several other medical gentlemen.

F. Lallemand, Professeur de Clinique Chirurgicale à la

Faculté de Montpellier, has published the second edition of a very interesting case of notencephale, with engravings, which occurred at the Hotel Dieu, 1816; it differs from our case in many particulars of formation, and development; but is similiar in this remarkable fact, that the quantity of liquor amnii discharged during the labor, was altogether unprecedented. Let it be remembered, that five days previous to the accession of labor, our patient, on the occurrence of slight pains, discharged from the uterus, in the course of a few hours, the very unusual quantity of liquor amnii, estimated at three gallons. This enormous quantity of water, may in part account for the indistinctness of the fœtal motions. This was not the only cause, as all will acknowledge, after what has been stated; let us therefore stop and take a discursive glance at the case.

We here see the perfect integrity of the peripheral nerves, we see a tolerably well formed cerebrum, externally quite perfect, internally so soft that the minute subdivisions were not made out, as in a perfect brain. We learn, also, that there is no cerebellum, and no spinal cord. From the motions succeeding birth, may not the position be maintained, that there was a medulla oblongata, more or less perfectly developed, and if so, might not its seeing, hearing, smelling, and tasting, also have been moderately perfect? It would not have possessed the powers of locomotion from there being no spinal cord; and although the organs of generation were perfect, yet, if the cerebellum holds that influence over their exercise which we believe it does, they could never have sustained their appropriate and important functions.

But we are going too far to suppose anything like the establishment of animal existence, where there is so signal a deficiency in the essential organs of the cerebral system, whose just adaptation to each other is so highly requisite to the continuance of the vegetative functions, the performance of muscular and sensative motions and the more important manifestations of mental life.

From this and all similar cases, how irresistible the conclusion, that man, in his physical and moral nature, is admirably adapted to the sphere in which he exists, and the agents with which he is surrounded.

But to return; the great and principal cause of the slight and imperfect motion, was the entire absence of the spinal cord, from which deficiency cerebral impressions could not be communicated to the nerves of the lower extremities, nor could the automatic motions of the fœtus *in utero* be performed.

The spinal cord being an apparatus which transmits muscular and sensative powers, and the means of communication between the cerebral operations and the organs of motion, we could not in this case expect any motion in the lower extremities of this fœtus while in utero, or after birth.

The formation, growth, and development of these anomalous cases, will enable those who cultivate an acquaintance with nature's laws, to learn by careful study something of her operations, in a sphere so completely excluded from view that very little is yet clearly known.

Inasmuch as the great and good SPURZHEIM labored for truth and the discovery of nature's laws, we need not allude to the high gratification the medical world would have experienced could we have been assisted with a hand like his in the management and dissection of this rare and interesting case.

In the London edition of his Anatomy of the Brain, page 14 and 15, the position is maintained, very correctly as we believe, that the nervous system does not, if we may be allowed the expression, vegetate from a centre, that there is no punctum saliens; his words are, 'that it is not a unit, but consists of many essentially different parts, which have their own individual origins, and are mutually in communication.' Yet, he says, (page 62) that the spinal cord is the origin of the nerves styled spinal; and disclaims the positions maintained by M. Serres, which, among others, are, 1st. that the nerves are developed from the circumference towards the centre; 2d. that they are fully developed while the spinal cord and brain are still in a fluid state, and 3d. that the spinal nerves do not arise from, but are only implanted into, the spinal cord.' Here is a case which goes to maintain the theory of M. Serres. The spinal nerves were perfect, and all terminated on the dura mater of the spine, there being no trace of spinal cord, other than a very small, thin, membranous bundle on the left side of the spinal column, not at all resembling the spinal cord either in texture, color, or form. However tenacious we may be of our particular theories, no one can believe this to have given off the left spinal nerves, when the right half of the spine had not the slightest appearance of medullary tissue upon it, while the nerves were equally perfect and finely developed. It would, therefore, appear that this particular position of the great master, that the spinal cord is the origin of the nerves termed spinal, must be given up; for we cannot suppose a nerve or a set of nerves to originate from a part which does not exist. We see that they are here

formed independent of the cord; and are ever joined with it, only for the purpose of receiving and transmitting cerebral influence, the sense of touch, general sensations, and the powers of vegetative life. That there was or was not a medulla oblongata, from which the pneumogastric nerve originates, we were unable to determine with certainty, the bones of the skull not having been sawed open, that the skeleton might not be injured, which we much regret, inasmuch as this cerebral mass is the great moving principle of life. By having freely opened the skull we could more readily have examined the base of the brain. The great softness of the organ deterred us, but we confess our fault; nothing should have deterred us; time should have been given to it, the brain should have been hardened, and more if possible should have been discovered.

The pneumogastric nerve was seen, as has been stated, in the base of the skull, but not so certainly recognized as in a perfect fœtus, from the very confused state of the parts, and the great hurry incident to all dissections made by or in the presence of medical gentlemen engaged in extensive practice. We therefore conclude that the motions felt by the mother were of necessity performed by the superior extremities, through the agency of the eighth pair of cerebral nerves, the spinal accessory branch of which, after uniting with the par vagum, is distributed among the muscles of the neck and shoulder; these could transmit nervous influence quite sufficient to account for the feeble motions performed by the infant in utero, and after birth, while it lay enveloped in the membranes, struggling for breath. The mother describes the sensation at that moment as if it were moving its arms and body in endeavoring to crawl, (from the manner in which the head is joined to the body they must have moved together,) and she is distinct in her recollection that the feet and legs, which were yet in the vagina, did not move in the least. Perhaps it may be thought that some allowance should be made for the excitement incident to such occasions, but the mother avers that she was perfectly collected, and speaks of the conscious happiness she experienced on the birth of the child, from the proof she felt in its motions that it was living.

We have at length completed the case, and have only to add, that we are not aware that there is a case of monstrosity recorded with a brain so perfect in its exterior, yet without cerebellum and spinal marrow. And should another occur we hope, for the sake of science, it will not fall into the hands of so unskilful a reporter or so imperfect an anatomist. This, we say, on our own part, as a matter of fact, and are deeply impressed with the feeling which impels to its acknowledgment.

Art. II. — Revulsion: its Laws, and their Application to the Cure of Disease.

In the May No. of the Magazine, we gave an abstract of M. Sabatier's views of the laws of revulsion. We propose in the present article to give a similar abstract of his application of these laws to the treatment of disease.

It has very frequently been the case that practitioners have not distinguished with sufficient precision between the revulsive and some modes of the purely stimulant medication. The first combats a previously existing morbid excitation or irritation by the establishment of an analogous condition in some other part or organ of the body; the second determines an excitation in an organ or apparatus in order that the sympathies may transfer or diffuse this excitation throughout the whole economy. The first directs its action to some one part of the organization by means of a stimulation excited in some other part; the second by similar means directs its action to the entire system. The first has for its effects the removal or diminution of a morbid modification depending, primarily, upon a local excitation, irritation, or inflammation; the second, in producing a stimulation at first local, has for its effects the return of the general sensibility to a normal condition below which it had descended. Thus, for example, vesicatories used at certain periods of adynamic or typhoid fevers, sinapisms applied to the extremities of persons exhausted by profuse evacuations, and also the various means used to excite and increase the sensibility which has been diminished by the action of different deleterious substances act, not as revulsives, but as stimulants.

M. S. is not an exclusive solidist, and in those diseases depending upon a primary alteration of the fluids, he believes that revulsives are wholly useless. Thus, diseases occasioned by the absorption of certain putrid or otherwise deleterious substances are not to be cured by this kind of medication.

The first important practical rule resulting from the general principles laid down in the preceding article is this: — that in those cases where there is a very considerable exaltation of the vital actions this high excitement must be diminished by appropriate means, such as the general or local abstraction of blood, refrigerants, demulcents, emollients, &c, before the re-

vulsives can be used with success or even with safety. From some attention to this subject, we have reason to think that in too many instances this rule is not sufficiently regarded. Blisters, for instance, are applied by many physicians in the treatment of the acute phlegmasiæ, before the system and the diseased organ itself has been brought down to the 'blistering point,' in which cases they must act, not as revulsives, but as new causes of excitation, aggravating that condition of the organ which they were intended to mitigate. In the case of an intense ophthalmia, for example, the immediate application of a vesicatory to the back of the neck or to the temple will, almost invariably, add to the severity of the inflammation, while the same remedy, after the intensity of the diseased action has been diminished by suitable measures, will be more efficacious in the final removal of the inflammation than anything else. Where the general or local excitement is not great enough to contra-indicate the use of revulsives at the commencement of an acute inflammation, they should be applied to a part distant from the inflamed organ; at a later stage, when the general excitement has disappeared, and the local affection persists, the revulsive should be applied as near as may be to the diseased part, as it should also for the removal of chronic affections. If there is only general excitation, with no indication of a special affection of some one organ, revulsives should not be employed.

Revulsive substances can be applied directly, only to the cutaneous surface and to the mucous membranes; and among these latter, for the most part, to the lining membrane of the digestive tube. We shall notice their application to the skin.

Cutaneous revulsion has this advantage over the mucous revulsion, that we can generally regulate without much difficulty the energy of its action, increasing or diminishing it according to our wishes. It serves also, sometimes, as an index, by the aid of which we are enabled to estimate, to a certain degree, the state of the vital forces. In the case of persons endowed with great susceptibility, and in whom the functions of the skin are very actively performed, we may sometimes, other things being equal, derive greater benefits from the use of revulsives than we can in those individuals differently constituted in this respect. The inconveniences liable to result from the revulsive medication are also much greater in these cases, so that the individual susceptibility should always be taken into account in the employment of these means.

Revulsives may be applied to any and every part of the tegumentary envelope. Experience proves, however, that in the inflammation of any given internal organ it is not a matter of indifference whether the revulsive be applied to this or that region of the skin. The relations physiologically existing or accidentally established between certain organs and certain regions of the skin constitute an interesting subject of inquiry in connexion with the action of revulsives. This matter has not received the attention which its practical importance seems to demand. M. Sabatier makes the following observations in regard to this subject.

Corresponding regions of the cutaneous surface on each lateral half of the body, have between themselves sympathies more marked than those existing between other regions not similarly situated in relation to each other. Thus the skin of the inner part of the thigh or the arm of one side, is connected by a special sympathy with the corresponding region on the limb of the opposite side.

Certain observations of cutaneous pathology tend to show that there is a strongly marked sympathy existing between the several portions of skin situated along the boundaries of the pilous system.

In many cases revulsives may be applied with greater benefit, *cæteris paribus*, to the following regions, in the diseases mentioned, than to other portions of the skin: —

To the inner side of the arm, or to the calf of the leg in certain diseases of the lungs and pleura.

To the soles of the feet or to the ancles, in certain diseases of the brain and its membranes.

To the inner side of the thighs in intestinal mucous irritation; in peritonitis when just commencing or when passing into a chronic state, and in certain diseases and functional disturbances of the uterus.

To the epigastric region in a great number of affections of the stomach.

To the back of the neck in many chronic, inflammatory affections of the brain or its membranes, and in many diseases of the eyes.

To the mammæ in certain cases of uterine derangement.

In a great number of cases, and especially in the treatment of chronic affections, the revulsives should be applied as near as possible to the diseased tissues.

M. S. makes the following classification of the several kinds

of disease and conditions of the system requiring the use of revulsives, with their appropriate modifications of this treatment.

1. *Revulsive treatment in acute inflammation of an organ, just commencing.* The revulsive substance should be applied at a point removed from the inflamed organ, while at the same time emollient, relaxing fomentations should be applied, upon or near to the inflamed organ. When revulsives are used at the onset of acute phlegmasiæ they should be so applied as to produce a superficial but somewhat extensive irritation.

2. *Revulsive treatment where an inflammation has passed through its acute stage; having left in the part changes susceptible of being removed.* In these cases a more permanent irritation is required than in the preceding class. Blisters repeatedly applied to the same part, setons, issues and sometimes the moxa will be found most efficacious. The actual cautery, heated to the temperature of boiling water and applied to the mastoid regions, has been successfully used in many instances of cerebral inflammation having a tendency to pass into the chronic state. Toward the termination of acute pulmonary catarrh, a vesicatory may frequently be applied with advantage to the inner side of the arm, or between the shoulders. Blisters are applied with too little discrimination in acute diseases of the chest. It should be constantly borne in mind that this kind of medication, like all others, if not well timed, is productive of evil instead of good, and that when resorted to in the beginning of an acute thoracic inflammation it will aggravate instead of diminishing the disease.

3. *Revulsive treatment of diseases essentially chronic.* In that immense group of diseases, somewhat indefinitely designated but very well understood by the term chronic, there is no method of treatment more generally resorted to, or more frequently successful than the revulsive. The revulsive process in these cases should, generally, be established as near as possible to the diseased organ, and it should be kept up for a considerable period of time. It is in these affections, also, that the discharge itself from the surface to which the revulsive has been applied is of importance, no less than the morbid action, or irritation, which occasions the discharge. Setons, issues, the actual cautery, tartarized antimony, &c, are the means generally resorted to in these cases.

4. *Revulsive treatment in cases of sudden metastasis.* When

in cases of rheumatism, or gout, the disease is suddenly transferred from an articulation to some vital organ, producing great distress, and attended with imminent danger, the irritating substances should be applied to the part primarily affected. Those means which produce an extensive and rapid irritation, should be preferred, such as large vesicatories, sinapisms, friction with ammoniated liniment, &c. It is in these cases especially, that the violence of the symptoms and the state of general spasm resulting from the sudden attack of an important organ, often prevent the ordinary effects of the irritating substance from manifesting themselves within the usual time. The retrocession of acute cutaneous affections is almost always accompanied with great functional disorder, either of some one or of several internal organs. The organ secondarily affected, varies with the nature of the primary disease. Thus metastasis of erysipelas is likely to be followed with affection of the brain or its membranes, that of measles with inflammation of the lungs, the mucous lining of the bronchi, or the pleura, while the sudden subsidence of the small pox eruption occasions serious disturbance of the stomach, and, through sympathy with this organ, of the brain. Where the eruption was confined to a part only of the skin, as is generally the case in erysipelas, local revulsives are indicated, such as sinapisms to the feet. If the erysipelas affected the face, after local or general blood-letting, which should generally be resorted to in this case, a vesicatory applied to the back of the neck will frequently be followed with prompt relief. In cases where the eruption was spread over the whole cutaneous surface, as in the exanthemata, it is often necessary to produce a moderate excitation of the entire tegumentary envelope. This is best accomplished by the use of warm or vapor baths, continued for a considerable length of time.

But beside this effect of the retrocession of acute eruptive affections, it sometimes happens that those of a more chronic character disappear, from similar causes, and are followed by similar derangements only less violent and dangerous. Here, if the primary affection were superficial, a blister should be applied to the region which it occupied. If the difficulty is dependant on the cicatrization of an old ulcer, suppuration should be re-established by the use of the cautery, actual or potential. It may here be repeated that these cases of genuine metastasis are less frequent than is generally supposed, the secondary affection being more frequently the cause than the consequence of the disappearance of the primary one.

5. *Revulsive treatment in some cases of spasmodic affection.* M. Sabatier's observations on this subdivision of his subject are somewhat confused and obscure. The substance of them seems to be, that in many cases of functional derangement depending apparently on some disturbance of innervation, revulsives may be applied either in the neighborhood of the suffering organ or at a distance from it, according to circumstances, with success. He takes this occasion to speak of the frequent difficulty of diagnosis, and of the still more frequent difficulty in the attainment of wished for remedial results. He says the belief that our science will one day arrive at that degree of perfection, which shall preclude the possibility of errors in diagnosis, is only an utopian vision. We can only expect that as the science is enriched with new observations and new facts, the sources of mistake will become less numerous, while at the same time it must be admitted that therapeutics will gain but little; or atmost, that in many cases it will acquire only the advantages resulting from the knowledge of its own impotence. The truth of this, he says, is demonstrated by a review of the progress of these two great practical branches of medicine during the present century, the science of diagnosis in a great number of diseases having been vastly improved, while the therapeutics of but too many among the same diseases has remained stationary or has been almost abandoned. Now we are not altogether ready to respond to this disheartening view of the future destiny of therapeutics. Our organ of hope is very largely developed, and we shall not quarrel with our readers if they attribute our notions on this subject to the inordinate activity of this blind feeling, rather than to any very energetic action of the more anterior cerebral organs. But, is the history of medicine for the last thirty years so unpromising in this point of view? Is it so true that the labors of the pathologist, the botanist, the chemist, and of the clinical Hippocratic observer, have thrown so little new light on the management of disease? Have they after all, accomplished nothing towards the furtherance of the sole valuable end and aim of their own researches, and, looking at the more recent results of their efforts, are we justified in believing that in regard to all and everything which is of practical importance in our science, there is so little hope in the future? For our own part, we not only hope but we do believe that the treatment of disease is yet to be improved, and we are led to this conclusion both by the history of the

past and by the nature of the subject itself. We believe this to be, like most other matters of human inquiry, susceptible of almost indefinite improvement. Who shall say that our acquaintance with the properties of the vegetable products which cover the whole earth, so far only as these properties are capable of influencing the vital organization in some of its disturbed actions, is anything like complete? Who shall say that chemistry has exhausted the series of her combinations, that her hand has lost its cunning, that her literally *creative* power has departed from her forever, and that no new modifier of vitality shall henceforth issue from her crucible? It seems to us that it is bad in its influence as well as wrong in its philosophy, — this opinion, that no very considerable improvement is to be looked for in the treatment of disease, and that nature has necessarily in her vast storehouse, no yet undiscovered substances capable of impressing new and peculiar modifications on the morbid processes of the living economy. We said that the history of the recent past as well as the nature of the subject filled us with hope for the future, and the most prominent single point of that history, then in our mind's eye, was the treatment of scrofula by Iodine. We are well aware that the records of medicine are cumbered with the histories of the rise and fall of remedies, which came as rapidly into favor as this has, and which have long since been abandoned as useless or as worse than useless, and that it may yet be so with iodine. But it certainly appears now to be very well settled, that a disease hitherto esteemed as almost absolutely incurable, by medicine, is very much more under the control of this substance than of any other which had previously been used in its treatment. If this is the history of scrofula, why should we fold our hands and despair in regard to any other disease? We have no disposition to indulge in wild and idle anticipations of the future triumphs of our art; we believe that an essential characteristic of our organization is its liability to derangement, that life must be followed by death, and that science can never furnish a remedy so sovereign or a charm so potent as to baffle all the onsets of disease, and to postpone indefinitely the inroads of decay; but at the same time we would deprecate that feeling which, if not satisfied with the present, is at least distrustful and despairing of the future. We return from this digression to our analysis.

6. *Revulsive treatment when some one or more organs are suffering in consequence of the sudden suppression of an ha-*

bitual sanguineous flux. The first indication in these cases is to re-establish the interrupted discharge, and this is best done by the abstraction of blood from the neighborhood of the part which had been the seat of the habitual congestion. Thus, in the case of suddenly suppressed menses from the action of cold or from the effect of strong moral emotions, their return should be solicited by the application of leeches to the vulva, and the same rule is applicable to the management of other analogous cases.

7. *Revulsive treatment of hemorrhage.* The first indication, in many cases, of profuse and sudden hemorrhage is to lessen the activity of the circulation by the abstraction of blood. But, beside this, it is very frequently necessary to call off irritation from the part which has been the seat of the sanguineous congestion and afflux by the use of derivatives. The point of most practical importance to be borne in mind in these cases is, the necessity of great caution in the too early use of such revulsive substances as have a tendency to excite the general circulating system.

Revulsion by substances applied to the mucous membranes. The most important of these membranes, in this point of view, is that lining the digestive tube. We may remark, in the first place, that while cutaneous revulsives generally excite irritation or inflammation of the part to which they are applied, it is necessary in the greatest number of cases, when acting on the mucous membranes, to confine the excitement of the revulsive substances within the limits of physiological action. There are differences in the physiological sensibility of the different portions of this membrane, as there are in the various regions of the cutaneous covering. Attention to these differences, as well as to the sympathies existing between the several parts of this membrane and other organs, is essential to the successful use of mucous revulsives.

The intimate sympathy between the digestive organs and the head is too well known to require any illustration here. So, in nearly all cerebral affections, acute and chronic, there are few modes of medication more successful than that of revulsion operated on the lining membrane of the stomach and intestines. Similarity or analogy of tissue and anatomical connexions are the causes of other important sympathies. There seems to be a special sympathy existing between the two extremities of the digestive tube. For this reason, leeches applied to the anus and irritating enemata are successfully used

in cases of laryngeal and tracheal mucous inflammation. There are other sympathies apparently arising from the co-operation and association of other organs in the accomplishment of the same general purpose. Thus, affections of the glandular viscera of the abdomen are very much under the influence of revulsives acting on the digestive mucous membrane.

M. S. closes his treatise with some remarks on the modus operandi of tartarized antimony in the removal of pulmonic inflammation. It is well known that the dominant French school explains its operation in this case as a revulsive, acting on the mucous membrane of the stomach and intestines. M. S. doubts the correctness of this explanation. We agree with him. There is no evidence of any revulsive action. The division of all remedies into only three classes is, like the other principles of this school, fascinating from its simplicity. Its disciples deny, for the most part, the individual *speciality* of action of the different remedial substances. We think that here, as well as in their pathological principles, they have sacrificed truth to the spirit of system, and that our materia medica and therapeutics will never arrive at that point of perfection to which they are capable of being carried, but by a diligent study of the nature and differences of morbid phenomena and of the peculiar and *specific* properties, the individual and characteristic powers and operations, of the several substances which act as modifiers of these phenomena.

Art. III. — Fatal Empiricism.

Communicated for the Medical Magazine, by George Bartlett, M. D.

A daughter of Mr Sherwin, on Poplar Street, in this city, aged eighteen, had suffered recently from loss of power in one of her arms, but was otherwise as well as usual, having been at times debilitated by leucorrhæa and painful menstruation. On Friday, May 30, she took advice for the lameness in her arm, of one Ephraim Whitney, an irregular practitioner, who gave her a prescription as follows;

℞ Pulv. Rad. Rhei. ℈j.
Extr. Elaterii grs. iij.
M ft. Pil. No. 5.

The mother, who accompanied the daughter to the house of the medical adviser, says the directions were, to begin with *two* pills, and repeat one every three hours until she vomited 'wholly.' Not being particularly sick on that day, she deferred taking the medicine a day or two, until Sunday June 1; at nine A. M. she took two pills, vomited once and repeated a pill at twelve o'clock, and again at three P. M. She had now taken four pills or $2\frac{2}{5}$ grs. Ex. Elaterium, and sixteen of Rhubarb. From this time she vomited incessantly with only intervals of from ten to fifteen minutes. In the evening the parents were induced to call on their doctor, owing to the harsh operation of the medicine, and the remark of the druggist who prepared the pills, that they were 'real scrapers.' Brandy, Paregoric, &c, were prescribed with an assurance that there was no danger at all. After various means to check the vomiting had proved unavailing, I was called to visit the patient about three o'clock in the morning, and found her vomiting a thin fluid like serum, highly tinged, as with bile, pulse feeble, small and frequent, countenance anxious, no pain over epigastrium on pressure with the hand, had vomited at that time about twelve hours, and had six dejections, had complained that the material vomited 'tasted as if it ought to go the other way.' I prescribed opium in soda powders and a large mustard cataplasm to the abdomen, with abstinence from drinks, with directions, if the vomiting had not ceased at sunrise, to get the recipe from the druggist's, as I had no means of ascertaining the nature of the emetic given. At my next visit I found the patient not relieved — pulse almost imperceptible, very great thirst — eyes sunken, and the whole countenance remarkably expressive of the usual appearance in cholera — no dejection since first visit, and no urine had been passed. Lime water and milk and other domestic remedies were advised, and as the patient seemed sinking from exhaustion, diffusible stimuli seemed to be indicated and æther and ammonia combined with Tr. Menth. Pip. and occasional additions of laudanum were exhibited. No amendment took place through the day, except a rather more promising state of the pulse and countenance in the afternoon. At five P. M. the pulse was very quick — above 150 and irregular. The vomiting had not diminished. A large blister over the abdomen was directed, and Spts. Gualtherii added to the medicine already prescribed. At nine P. M. no better. The patient continued to vomit incessantly, and when called to her at two o'clock the extremities were cold, pulse imperceptible, tenderness over abdomen excessive, with

excruciating pain when drink, which she attempted to take, reached the stomach. No dejections and no urine since I first saw her. She died at three o'clock — thirtysix hours from the time the last pill was taken. The matter ejected from the stomach towards the last was darker, and resembled turbid chocolate.

Examination nine hours after death, in presence of Drs. Doane, Flint, Wing, and several other medical gentlemen. The body was five feet three inches in length. On laying open the abdomen the whole cavity seemed to be filled with the stomach, as if stretched by inflation to fill it, and leaving no intestines in sight. It measured nine inches from the liver in its longest diameter, extending down to the superior spinous process of ilium, and seven inches in its shortest, in situ. Being removed and laid on the table before emptied of its contents, its length was twelve inches. — External surface greyish and very dry, vessels of great curvature highly distended with dark blood, contents a quart or more of dark brown fluid — mucous membrane highly injected, not corrugated, looked granular or like mouths of patulous vessels. There were a few spots near the cardiac orifice that seemed to be abrasions or perhaps disorganizations. On lifting up the stomach the colon was seen contracted to a very small size, and the whole intestines highly inflamed and free of fœcal matter with a slight exception in the cœcum. The duodenum and jejunum exhibited much the same appearance, outside and in, as the stomach; the lungs healthy, except an old slight adhesion. The other viscera presented nothing worthy of remark.

The case seems proper to publish for two reasons. It should caution the public against the use of some of the popular nostrums of the present day, which seem from their action to be disguised compounds of the same article, and it may also aid us to fix the proper dose of the medicine. The smallest dose that has been known to result in death, is far more important as a matter of record than a knowledge of the utmost limit to which it has ever been prescribed without perceptible injury.

Art. IV. — Pathological Facts.

By A. L. Peirson, M. D.

1. *Communications of Tubercular Formations.*

It is not very frequently the case that tubercular degenerescence is connected in tissues which are separated by a serous membrane. In the lungs, after every portion of the pulmonary tissue, in a tuberculated region, is entirely removed by the ulcerative process, the pleura will generally be found entire and free from this peculiar alteration. As there seems to be no reason to doubt that the swellings in the neck of strumous subjects, which soften and discharge, first a caseous then a purulent matter, are really tubercles, it seems somewhat remarkable that the disease should not oftener be simultaneous in the apex of the lungs and the almost contiguous lower cervical absorbent glands. I have never but once seen this form of tubercular disease. In this case the tubercular mass extended from beneath the clavicles to the angle of the jaw, and was upon the point of bursting externally, when the patient died. Dissection exhibited a continuous series of softened tubercles from the top of the lungs to the superior portion of the swelling. In the following instance the communication between an abscess beneath the skin and the cavity of the thorax, was still more remarkable. A young woman who had been for several months affected with cough and dyspnœa, but without much emaciation, at length had an abscess over the top of the sternum. This discharged freely on being opened. After some weeks a small fistulous canal only, remained in the place of the abscess, and through this opening bubbles of air were discharged, when the patient made the effort to cough. When any liquid was forcibly injected into this sinus, a portion of it was coughed up by the patient. Auscultation did not show the formation of any caverns within the lungs. The patient died at the end of about nine months, from the formation of this communication, worn out by the discharge and the incessant cough, rather than by the ulcerative process of Phthisis. Having seen her several times in consultation, I examined her body in company with the attending physicians in February, 1834. There were several fistulous openings on the sternum,

all communicating with each other and terminating at the top of the sternum, where was an opening into a cavity beneath the sternum. There was no opening which could be discovered into the bronchiæ, but at the bifurcation of the trachea a small cicatrix was observed, where probably such an opening had existed. The bronchial glands, at the bifurcation of the trachea, were tuberculous and ulcerated, and communicated with the fistulous openings on the sternum. Both lungs contained a large number of tubercles, some of which had softened and discharged, but without forming any large cavities. The mucous membrane of the large intestines exhibited many patches of ulcerated follicles, such as are almost uniformly discovered in phthisical subjects.

2. *Ossific Formations in the Heart.*

Mr —— had passed the greater part of his life at sea, in what he esteemed the enjoyment of uninterrupted health. He had, however, occasionally dyspnœa and pain in the region of his heart for the last four or five years, and has not been able to go aloft with his usual facility on account of increased dyspnœa. He first came under my observation about three years before his death, complaining of a catarrhal affection. All this time his pulse was the most broken and irregular I ever observed. There seemed to be no three strokes of the heart alike in rhythm or intensity. He subsequently made a voyage to the East Indies. On his return his catarrhal difficulties had increased, he had syncope on arising in the morning, his digestion was impaired, his flesh was less firm, and his constitution was evidently breaking up. A very constant symptom which had existed for years, and which was never satisfactorily accounted for, was a sensation of coldness in his back, at a spot nearly opposite the heart. He died April 2d, 1834, at the age of fortynine years, and the post-mortem examination clearly exhibited the cause of the extraordinary irregularity of pulse.

In the thorax the lungs were found healthy, except that of the left side was adherent to the ribs. The aorta exhibited several small patches of bone, and a slightly irregular and dilated appearance. The semilunar valves were in a healthy state, except a very slight ossification at the fixed margin of one of them. The heart slightly exceeded its usual size. The walls were nearly of their usual thickness or perhaps a little thinner than common. The auriculo-ventricular valves of the left side exhibited a very singular morbid appearance.

On their free edges were numerous spiculæ of bone, some needle shaped, and others many angled. These were so situated as to be impelled against the sides of the left ventricle at each dilation. One of these spiculæ was pointed, three quarters of an inch in length, and attached to the valve at right angles to its surface. The largest of the irregular shaped masses, was of the size of a common garden pea. Nothing morbid was discovered in any other part of the heart.

Strangulated Hernia.

Aug. 24th, 1832. I was called in consultation to the case of a laboring man aged sixtytwo, who had three days before exhibited symptoms of colic and gastric distress, which had caused him to suspend his work repeatedly during the day, and at length, to call his physician. He had had no alvine dejections for two days. Attempts to procure evacuations were ineffectual and terminated in violent vomitings. In this manner he passed two nights under the administration of alternate opiates, cathartics, and enemata. A small tumor was now discovered in the left groin in shape and appearance like an inguinal gland. The tumor was inelastic, not extremely tender, and suffered no motion on the patient's making strong inspirations and efforts to cough. The pulse, tongue, skin, and the strength were but little affected. It was therefore concluded to persevere in the use of cathartics of a more drastic sort and the administration of enemata. The effect was the same as before, and another night, of greater distress than the preceding, was passed. On the morning of the 24th, the general appearances were more morbid and there was stercoraceous vomiting with tenderness of the abdomen. The inguinal tumor had increased to the size of a pullet's egg. Some efforts at reduction were now made, which diminished the size of the tumor without causing it entirely to disappear. I saw him first in the evening of this day. He was bled from the arm, and an enema of tobacco smoke administered, which induced syncope. An attempt was for sometime continued with moderate force to reduce the tumor, but without success. During the continuance of the syncope, vomiting occurred, and in the matter ejected from the stomach was perceived the *strong smell of tobacco smoke*, which the patient also tasted. The operation was now urged upon the patient, which he peremptorily refused to consent to. An opiate was administered, and he was left till morning. On the 25th, after the lapse of four

days from the first occurrence of the abdominal pains, he consented to the operation, which was accordingly performed. A very small portion of intestine, about the size of a small cherry, was found incarcerated, of a dark purple color, and covered with omentum. This was easily returned, and the patient laid in bed. The operation produced but little change in the patient's appearance. Enemata was again resorted to without producing any satisfactory discharges. Cordials and opiates were administered and the patient sunk exhausted in about twentyfour hours from the operation. On examination after death, there was found a redness and tumefaction of the peritoneal covering of the intestines, on which were seen some small patches of effused fibrine. The portion of intestine strangulated, was a small knuckle of the ileum, *about one third of the calibre of which, alone, was engaged in the strangulation.* In the centre of this spot, which was all of a deep purple color, was a small sphacelated opening of quarter of an inch in diameter. This condition of the parts explained the obscurity in the diagnosis of the hernia, and especially the remarkable fact that tobacco smoke was transmitted through the alimentary tube while in a state of strangulation. If cathartics had acted to procure stool in this case, as they surely might in a similar one, it would have been impossible to have believed in the existence of a femoral hernia, and yet such was the fact.

Salem, May 30th, 1834.

COLLECTANEA.

Cure of Neuralgic Affections with the 'Mineral Magnet.'

Case 1. — Mary Anne Honneur, aged 56, residing on the Pavement, Moorfields, of a spare, nervous, dyspeptic habit, came to me to have the magnet applied to the articulations of the wrists and fingers, for an intolerable pain and heat in those parts, depriving her of rest and appetite, and gradually reducing her strength. Her pulse was quick and small, her tongue red and cracked; she complained of a burning sensation in the mouth and throat; the bowels were irregular; her skin was hot and rough; her eyes were dull and heavy; her hands and fingers swollen, rigid, and acutely painful when touched or moved. She was unable to lift anything, and incapable of attending to her household duties. She stated, that three years ago she was seized with violent pain in the stomach, which has continued more or less up to the present time. About twelve months back she also experienced great pain in the shoulders, which descended down the arms, and finally, fixed itself in the finger joints of both hands. She has been under medical treatment eighteen months. Bleeding, both local and general, lotions, poultices, frictions, combined with a variety of internal remedies, had been resorted to without affording any beneficial results.

On the 2nd of July I commenced the magnetic application, by passing the instrument over the affected parts for the space of twenty minutes. The pain was considerably mitigated by this, and in a short time she experienced a pleasant glowing sensation, and had profuse perspirations. She also passed that night comfortably

3rd. The *passades* were repeated, after which she was much easier. Has had a good night, and perspired copiously.

4th and 5th. The applications were renewed with decided benefit. She can now bend the first joints of her fingers without much inconvenience.

6th. Has had a bad night from an accession of pain in the middle and ring fingers of the left-hand. The right hand is considerably better. I submitted the former to the magnetic influence, and she was shortly relieved from the pain and stiffness.

7th. During the night, the same symptoms which took place last night came on again, but they were of shorter duration. The parts were again submitted to the action of the magnet, with similar success.

8th. Complains of great weakness in the left hand; the pain and stiffness have nearly disappeared. From the 9th to the 18th the applications were repeated daily with the most happy results. She is rapidly recovering her appetite, her general health is decidedly improved, she has regained the use of her hands, and she sleeps well. The only inconvenience she experiences is a slight heat and soreness in the articulations of the fingers, and in the flexor tendons, after which they become stiff. This is particularly the case in sudden atmospheric changes of temperature.

Case 2. — Elizabeth Lewis, a delicate, nervous woman, aged 24, residing in Blackfriars-road, had suffered violent pain in the right hand and arm for three or four months, and considered it to be a rheumatic affection. Having heard that one of her neighbors (Charles Walker, whose case is recorded in the Lancet of the 6th of July last) had been cured of a similar complaint, by means of the magnet, she wished me to subject her to the same treatment.

She stated, that about four months ago, she received a blow on the back of the right hand, from the falling of a piece of wood, and on examination I perceived a small puffy tumor at the point of the injury, from the period of which she had experienced great pain in the right hand and arm. It commenced at the back of the hand, just over the index and metacarpal bones, extending upwards towards the shoulder, and rendering the limb powerless. Her sufferings were most severe. When in bed the pain was, according to her account, of various descriptions; sometimes it was spasmodic, at others dull and aching, with an occasional sense of burning, as if hot iron was being thrust into the flesh. The pain was considerably increased upon the application of pressure, and the least sudden movement of the fingers caused acute shootings along the course of the radial and cubital nerves; yet all the other usual attendant symptoms of inflammation were absent.

A professional gentleman was consulted, when stimulating liniments and various other external remedies were ordered, and persisted in for some time; but these applications aggravated rather than ameliorated the disorder.

Her pulse was 96, small and contracted, bowels obstinate, tongue furred, skin cold and clammy, countenance pale and anxious; a slight convulsive tremor pervaded the system; her general health had been much impaired by having had four successive abortions within the last eighteen months; sleep disturbed, and appetite very delicate.

On the 26th of August I applied the magnet to the right arm and hand for half an hour, after which she was enabled to close the hand, and the forearm could be bent and rotated on the humerus, without the production apparently of inconvenience.

In consequence of the patient's residence being at too great a distance for the repetition of the magnet in the evening, and as she said she dreaded going to bed on account of the violence of the pain, she took an opiate at night and was ordered another two hours afterwards, if necessary.

27th. Was much distressed by the headach, which appeared attributable to the opiate. The spasms were less violent; the patient slept a little, and perspired copiously. The application of the instrument was repeated, and she could bear flexion and rotation of the limb without flinching, but she complained of being greatly debilitated.

28th. Experienced much relief from the magnet; passed a tolerable night; had some refreshing sleep; said that her arm was much stronger. The spasms have been frequent, but not very violent, changing from the hand, along the nerves, to the shoulder and neck, and from thence, after a short duration, back again to the hand. Was again magnetized, and appeared easier.

The magnetic treatment was continued every alternate morning, from the 30th of August to the 10th of September, with decidedly beneficial results. After each application, the sensibility of the injured nerve was greatly diminished; at the same time the muscular power of the limb was considerably increased. In consequence of the patient having regained the use of her arm, the applications were then discontinued.

Case 3. — The subject of this case, William More, an umbrella-maker, 34 years of age, residing at No. 35, Little Shire lane, Cary street, of a sallow complexion, complained of a constant throbbing and burning sensation of the left side of the face, as though hot needles were thrust into the flesh. His countenance evinced an unusual degree of acute mental suffering, the muscles of the neck were stiff, and he had great difficulty in moving the head. The spasms usually began behind the ear, affecting the inner angle of the eye, the upper and lower bicuspid teeth, the apex of the cheek, and the temple. The pain remained stationary at these points for a short time, and then was diffused over the whole facial plexus.

The pulse was small and quick, the tongue coated, the breath fetid, the eyes dull, with a discoloration of the skin around the orbit, particularly the left, which was unable to suffer the action of a full stream of light; the upper lid was much swollen, and laid pendant on the globe; at every spasm the ball was drawn upwards at its inner angle; this appeared to be caused by the contraction of a few twigs of nerves of the sixth pair, which ramify in the abductor muscle. All the other functions were natural.

The following is the history of the cause, treatment, and re-

sults, of the case, as given by himself: — 'I had never,' he said, 'had a day's sickness until between three and four years ago, when I took a bad cold, which left a deafness of the left ear. I belonged to a benefit society, and at one of our evening meetings a thoughtless young man took it into his head that my deafness was feigned, drew forth a pistol, which had a double charge in it, and while my attention was purposely diverted to something on my right, fired it off close to my left ear. The consequence was, that I became permanently deaf, and was seized with horrid gnawing pains in that ear, and on that side of my face, from that day. I had a sleepless night from the pain in my temple. Next morning I went to a doctor, who immediately bled me. This eased my head for two or three days, and then the violent gnawing, shooting pains returned with double force. I had also an uncomfortable dryness of the left nostril, and I have entirely lost the sense of smell therein. I was advised to consult another medical gentleman, who ordered me a large dose of the carbonate of iron, to be taken night and morning, also two blisters, one to be put behind the ear, and the other at the back of the neck, to be repeated every three or four days which directions I strictly obeyed eight times. The iron I took for a month. These remedies drove away the pain, and I thought I was perfectly cured, but in about a month the spasms returned, and I then saw everything double. I immediately applied to the same practitioner as before, and was under his care for two months, taking a great many drugs, and trying several things, which removed the double sight. But the pain still continued as bad as ever, and he then said he could do no more for me, advising me to go to a dispensary, which I did. I there again tried the carbonate of iron during three months, without its doing me any service; I then got admitted into St Bartholomew's Hospital, where, also, carbonate of iron was prescribed, and large doses of opium, mixed with peppermint water, were given to me night and morning. This made me very dizzy and stupid, and I always felt as though I was drunk. I was in fact, at a loss to say whether the pain was not preferable to the queer and uncomfortable sensations produced by the large doses of opium. After remaining in this hospital a month, the physician who attended me said I was incurable, so I left, and again tried strong opening medicines, by order of the medical gentleman who first prescribed the carbonate of iron; but these did me no good. My left eye was now very painful, and whenever I had a spasm, the eyeball was drawn aslant, and remained so for several minutes.

'I next became an in-patient of St George's Hospital, where many remedies were tried for four or five weeks, and not getting better, I was discharged. I went at the recommendation of

several friends to four or five other medical gentlemen, without being relieved, all of them, indeed, saying that my case was hopeless. I was now worn out by want of rest and food, was unable to work at my trade, was reduced to the most abject poverty, and resigned myself to my fate, seeking no further medical advice. When the spasms were unbearable, I took large doses of laudanum. At this time a friend called on me, and said that he had seen a case in THE LANCET, of a lady who was cured of the same complaint by the mineral magnet, and advised me to lose no time in applying for relief by the same remedy.'

On the 19th of September the left side of the face and neck in this man were subjected to the action of the magnet for ten minutes, when he obtained immediate relief; the pain of the face, and stiffness of the muscles of the neck, left him, and he slept for half an hour, after which the instrument was applied again, and with the most satisfactory results.

20. Has had a better night: the spasms were less violent, and not so frequent; he felt this morning a severe pricking over the eye, and the head could not be moved without inconvenience; in other respects was better. The parts were again submitted to the application of the magnet, and with decided benefit.

21. Passed a good night, a circumstance which has not occurred to him for many months. The pain and stiffness still continue; the instrument was passed over the affected nerves, and he described the result as if a load which pressed hard on the head had been suddenly removed.

22. The applications were continued daily, from this date to the 31st, with the most gratifying effects. The general health was much improved; the pain has nearly left him. There is a little stiffness now and then from exposure to wet and cold, but up to the present date he has had no return of his sufferings. — *Dr Blundell.*

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

ART. I.—CASE OF PERICARDITIS.

COMMUNICATED FOR THE MEDICAL MAGAZINE, BY WALTER CHANNING, M. D.

A. B. aged five, had cough in June 1834, which was thought to resemble hooping-cough. This was very slight, and I was not requested to see him. Towards the latter part of the month he suddenly fell lame of the left knee. This was ascribed by his parents to a sprain, from a fall during exertion in play. I was requested to examine his knee. There was neither swelling, nor increased pain on pressure. Care was taken in walking to favor this limb, and when he stopped walking he invariably rested the left foot on the instep of the right, as patients acquire the habit of doing in those chronic affections of the joints in which stiffness exists, or in which a difference in length in the limbs is produced. Just before this affection of the knee, a very slight attack of something resembling incipient fever was noticed. A mild cathartic, abstinence, and rest, were followed in a day or two by relief. Before the first of July the knee was well, or no complaint was made of it, or lameness noticed. I was desired to see him the 4th, of July, as he seemed less well than usual, though no particu-

lar complaint was made. I found him still with cough, though this was not severe. He was unquiet, with variable spirits, and a less healthful aspect than when I last saw him. His pulse was quicker than in health, but not more so than could be explained by his constant activity, and the debility, though slight, which had followed his previous confinement on account of lameness.

It had been arranged by his family to leave the city for the remainder of the summer, and it being their purpose to leave on the 4th, I advised they should do so, as the country offered in its healthful air, and freedom from causes of excitement, the best opportunities for the completion of the convalescence which seemed to be making progress. He therefore left town on the 4th, which was Friday.

Early the Sunday following, July 6th, I was requested to visit him, being at the same time informed by note that he had the previous night, or rather at three in the morning, been taken more severely ill than at any time since he had manifested any appearance of disease. I should have said that the drive to the country had not annoyed him in the least, and that he had passed Saturday with unusual freedom from all unpleasant feelings or marks of disease. On my arrival I learnt that at three in the morning he had been restless, with great heat of the skin, more cough, and marks of general distress. His greatest trouble was referred to the lower part of the chest, though there was a decided extension of uneasiness or pain complained of across the upper part of the abdomen. A fact of some interest in connection with this latter difficulty was now stated. I was told that it had been a very common thing, almost of daily occurrence with my patient, to complain of pain in some part of the abdomen, especially after eating. His pain was of short duration, and generally went off suddenly. It had been noticed by his parents for a year or two.

I found the patient relieved from some of the earliest symptoms with which he had been seized, but was still somewhat feverish — his countenance was pale and languid, — his pulse rapid, — the skin hot and dry, — his tongue slightly furred. Occasional dry cough. As my patient, was some miles from town, and now threatened with severe disease, I advised his immediate return to the city. The arrangements for this were soon made, and about noon he reached home. I now examined the chest with much care. By auscultation the respiratory murmur was heard over all parts of the chest, it was louder than natural, and without rale. ercussion gave a

healthful sound every where, except over the region of the heart. Here was some flatness, but the murmur of respiration was sufficiently audible, in the whole neighborhood of the heart. The treatment directed consisted in a solution of tartarized antimony in such doses as the stomach would bear, at intervals of from three to four hours, — an alterative pill of submuriate of mercury, opium, and antimony at bed-time, mild laxatives, and demulcent drinks, with liquid farinaceous diet. Under this course the symptoms subsided. There were, however, attacks of pain referred to various parts of the trunk of the body, but more frequently than elsewhere to the epigastrium and a little below it, corresponding to the place of the arch of the colon. Sometimes this so nearly resembled the trouble produced by flatus, or other causes of annoyance in the large intestines that emollient enemata were used, and not unfrequently with relief. Sometimes the pain would as suddenly disappear as it came, and before anything was exhibited. Frequently relief followed the extensive application of a camphor embrocation to the chest and abdomen, and in the course of the disease this remedy was frequently called for by the patient, and became a very favorite application with him.

The amendment was gradual and seemed to promise to be permanent. This was, however, not the case, for an increase of symptoms gradually took place marked by some new phenomena. This was about the 12th of the month. The new symptoms were increased flatness on percussion about the region of the heart, — increased frequency, with a diminished force of the circulation, — dyspnœa, or rather short and panting breathing, of uncertain continuance at any time, and almost always produced by moral causes, though these last might be slight, a dry cough, and this rare, and without pain. Auscultation discovered no difference in respiration from what was noticed on the examination of the sixth. Over the portion of the chest in which percussion gave a flat sound, bellows sound was not perceived in the slightest degree; the action of the heart was found to be strong, but not irregular, and no pain was complained of in its region. Along with this aggravation of the disease the pains before-mentioned, as occurring in the trunk in various parts returned; they however, were still referred to their former seats.

The case thus far described had from its commencement been obscure. There were symptoms, both local and general, quite grave enough to explain the enfeebled condition of the

patient, but he had in a short time risen from much that seemed to be their natural effects, and without known cause was again ill, with symptoms more serious than at any other time of the complaint. The new phenomena shed much light on the pathology of the case. I had never lost sight of the affection of the knee before-mentioned. I had never been satisfied that its explanation by the parents was the true one, and I could not but remember that it was upon the disappearance of the pain in that joint that symptoms, apparently very trifling, were soon developed, and that the gravest of these now present were little other than an exaggeration of the earliest movements of the disease. The state of the patients mind was quite striking. Naturally very intelligent, he seemed to have suddenly acquired extraordinary acuteness, weighing everything that was said with great care, to be sure that he understood its full amount. His senses were exceedingly acute, especially his hearing, which frequently produced no small embarrassment. He manifested an unusual antipathy to everything in the nature of medicine, and an accidental allusion to the subject, however slight, always produced more or less alteration in breathing and in the action of the heart. This, at times, amounted to a paroxysm of extreme distress, making it questionable if these might not do more of harm by their temporary aggravations of symptoms, than medicines would of good by any present or more permanent operation. From all these circumstances both moral and physical, presented by this case, the diagnosis was cleared of obscurity. I believed the disease to be pericarditis, that it was rheumatic, and that it was closely related with the affection of the knee which had so distinctly preceded it.

The treatment adopted under these circumstances consisted in the application of leeches to the left chest, counter-irritants afterwards, colchicum, and a laxative; quieting mixture of magnesia and assafœtida at bed-time and in the night, as might be indicated. Under this treatment very marked relief took place. It was greater than after the first attack. He slept well at night, and was happy in the day; his pulse fell to nearly or quite their natural standard, — about eighty beats in the minute; the breathing became calm; the flatness over and about the heart diminished; the bowels were regular; and some desire for food was manifested. I found him in his chair on the 17th, cutting pieces of wood, a favorite occupation; drawing on his slate, and his whole countenance and manner

showing from how much of a very heavy weight his system had been relieved, and how happy it made him to express in a variety of ways his sense of relief. 'I feel very well to-day, Doctor,' was his cheerful greeting of me at my morning visit. During my examination, I asked him to step out of his chair and walk to a bureau which was within a step or two. This he did, and returned to his chair without any other mark of disease than the apparent weakness which a fortnight's illness might be expected to produce. I left him with easier feelings than after any previous visit, and indulged strong expectation that any farther active measures, would be wholly unnecessary. It hardly seemed necessary to continue farther medical attendance.

I was called at noon to see my patient. He had been suddenly seized at that time with a paroxysm more distressing than either of the others. His distress was universal. His breathing, seventy respirations in the minute, was accompanied by a grunt, a groan, or a shrill cry, occasionally accompanied by a short quick cough. The pulse was 160 in the minute; the skin pale, dry, but not strikingly hot. He lay on his back, shoulders but little elevated, with the feet drawn up, and thighs strongly bent on the trunk. Respiratory murmur heard everywhere, loud as before; beating of heart strong and heard in the right chest. Dulness on percussion as before. My friend, Dr Bigelow, saw him in the course of this paroxysm, and continued in occasional attendance during the remainder of the patient's life. Leeches were directed about the heart, and such other means as promised relief from present and extreme distress. Partial relief only was procured until the middle of the second day from the attack. On the 18th it was perceived that swelling had taken place extending from between the second and fifth ribs, the swelling being most obvious at its upper part. Percussion discovered increased flatness about the region of the heart. Its extent was very easily made out. Its limit in front was the middle of the sternum; from above, downward, it extended from the space between the second and third rib to beyond the sixth; laterally, it spread but little beyond a line drawn from above, downwards, in the direction of and near to the left side of the heart. Everywhere else the chest resounded well, and the respiratory murmur was fully heard. It should be added here, that such was the distress produced by the least motion, that the patient was never moved unless it was very important that he should be. This circumstance has not been mentioned

before, but it was so striking that it deserves a distinct place in the history. It was not that the limbs were in any way affected as by rheumatism, nor was it owing to the ordinary soreness or tenderness of the surface from severe previous disease, or from long lying in the same position; distress; hurried respiration; a cough, or cry; increased rapidity of pulse; these were among the effects of even slight motion. All this prevented any sufficient examination of the back, to ascertain how far morbid changes had taken place in other portions of the thoracic viscera than those which allowed of easy investigation laterally and in front. But both sides resounded so well, and the breathing was heard so distinctly in both these regions that it was not thought that important disease existed elsewhere, or that it was desirable to distress the patient by examinations which were not likely to lead to any useful practical results.

After this attack the system never rallied as completely as before. The appetite for a time failed entirely. So little was the thirst and desire for food, that for one twentyfour hours, not more than an ounce was swallowed, of cold water, and this not from desire of the patient, but at the intreaties of the attendants. The flesh rapidly disappeared; languor more or less strongly marked was present. Respiration was more easily affected, at times louder cough than at any other time occurred, with either the sound of mucus in the air passages, or that which accompanies the relaxed state of the vocal organs, which not unfrequently is ascribed to loose mucus in those passages. The bowels were easily moved by mild enemata, and the discharges were not morbid. The urine was small in quantity at times, but frequently not naturally altered from healthy. The suffering in the upper part of the abdomen, and in the last days of life in the hypogastric region, and distress under the sternum continued to harass the patient, though for some hours he would be perfectly free from these troubles. The skin underwent change. He became exceedingly white, of a marble whiteness, — œdema took place in the face, particularly in the cheeks, — not excessive, but the face had the fulness which would accompany an increase of flesh after disease, — slight œdema occurred in the feet, more remarkably in the spaces between the instep and toes. Wherever this existed the whiteness was most declared. The expression of the countenance was rarely much altered from health, perhaps never in the degree observed by writers on acute pericarditis.

It was said that after the last paroxysm there was obvious fulness in the upper part of the left chest. This did not continue, or was certainly less noticeable on the third day from its first appearance, I thought that there was less flatness on percussion in the upper part of the chest here than before the swelling, but what was very certain at the same time was, that this flatness could now be distinctly felt in the right chest, it extended, in other words, across the sternum, into the right side, and almost as far in every direction there as it had ever existed in the left. With this extent of flatness there was not a corresponding increase of symptoms. There was on the contrary much relief from some of them. Thus the pulse fell from one hundred and sixty, to one hundred and sixteen or twenty; the respirations to forty, to thirty, and at length when the patient was perfectly tranquil, the number was not much above health. But he was still entirely without appetite, — at times his distress was as great as ever — his nights, though he might sleep, were distressing; his sleep short, and generally accompanied with groaning or a distinct forcing grunt. He would breathe in this way, and with great and increasing rapidity, and at length awake from sleep as if awakened by the effort and distress which breathing required or produced.

In the last week in July, appetite returned, and it soon became very strong, producing much trouble as it would not have been safe under any circumstances, even of fair convalescence to have fully satisfied it. Food was, however, allowed. Rice with the red gravy of roast beef was a favorite at first and continued so even when meat was strongly demanded. Meat was at length given, and such other articles as would not obviously injure by their quantity or quality. There was no desire for fruit, even peaches and grapes of the finest kinds were hardly noticed, and were never allowed to take the place of more substantial food. Emaciation went on, the dejections were perfectly natural and abundant. I could not but think that suppuration had taken place in some organ. I said so to the friends. But with the single exception of the voraciousness of appetite, there was no symptom present of the existence of such a process. There were neither chills, heats, nor sweats, — the countenance had not the appearance of such lesion as attends suppuration, — there was no diarrhœa, nor no remarkable frequency of pulse. There existed, however, the same pathological state of the organs within the chest as had marked the case from the last paroxysm, the same evidence,

and this increasing, of pericarditis with effusion within the pericardium.

This patient died on the 5th of August. About a week before his death, I noticed a remarkable change in the appearance of the tongue. This had never discovered anything strikingly morbid. It had, on the contrary, been very uniformly clean and moist. If coated at any time, this seemed to be an accidental thing, for the coat soon disappeared. But at the time referred to, on examining the tongue, I was surprised to find that it was quite black over its whole surface. It looked, as one said, as if he had been swallowing charcoal powder. This perfect blackness did not continue to the end of life, but was always present more or less, and where it was wanting, a brown, dark brown color had taken its place. There was no marked change in the symptoms accompanying this state of tongue. He gradually failed, respiration becoming more and more difficult, the pulse increasing in frequency, — the strength failing. The stomach and bowels continued to perform their functions as in health. The appetite was as craving, and more so than when it first occurred. The sleep became very distressing with the night symptoms already given. There was no increase of œdema. That of the face was less than when first noticed. A very common action with him was to raise the arms along the sides of the head, and to clasp the hands above it. He always, or almost always lay on his back, and never required his shoulders or head to be much raised, a single pillow or two thin ones being all he desired.

I was called to see him on the morning of the 5th, at an earlier hour than customary for some days. I found him on a long chair to which he had been occasionally removed, his countenance altered, sunken, — his eyes and mouth open, breathing with much difficulty, — his skin was cold and damp, and pulse scarcely perceptible. I asked how long since these changes had taken place, and learnt that it was but a few minutes only. He was obviously in much distress, but too feeble to give to it full expression. His mind was perfectly clear, and his senses had all the acuteness which had marked his disease. He spoke to me frequently, said he was very faint, and this was many times repeated. He would rise with much apparent force, bend his head and body forward, and stretch forth his hands. These motions were often repeated. I saw him several times in the morning, and found him at each time more sunken, and at about eleven in the morning he died.

with no apparent increase of distress. The countenance immediately after death assumed the sweetest expression of his ordinary health. This return of the countenance to the natural and healthful, soon after death, from acute disease, especially when accompanied by much suffering, has been often observed, but in this case it was so striking that I have thought it worthy notice.

Post mortem appearances. Thorax. The body was examined in the afternoon of the day on which he died. Percussion was followed by the same sounds as during life. The body was everywhere of the same marble whiteness; no increase of œdema was noticed. The sternum being raised the pericardium presented itself filling both sides of the chest as far as this could be seen, and entirely covering and shutting back the lungs. The appearance of the pericardium was that of a dense, opaque membrane, in parts of it the texture looked white, shining, very exactly resembling a fascia. It felt thick and firm, and being tapped upon by the finger the undulation of fluid was very apparent. As it was determined to take out the organs of the chest entire, the abdomen was opened, and a pint of a light yellow serum removed. The diaphragm was now separated from all its adhesions, the blood vessels and œsophagus divided, and the lungs, heart, and costal pleura carefully raised without the least wound to the organs or pericardium. The trachea and œsophagus were then divided. It was found that the left lower lobe of the lungs was spread over in a very thin layer, and adherent to the pericardium, about half way over. Before opening the pericardium, its size was carefully ascertained, and found to be in its greatest circumference thirteen inches and ten lines; measured as it lay in the chest before removal, the extent of surface which presented on removing the sternum, with the cartilages of the ribs was across just seven inches. The pericardium was next opened, and twelve ounces of dense, heavy pus at once escaped. The pericardium was found preternaturally red, thickened, and lined with a light greenish yellow colored lymph, from two to three lines in thickness. This was gelatinous in its texture, but sufficiently firm to preserve its shape and connections with the pericardium. The heart was covered with a similar incrustation of lymph, somewhat irregular on its surface; this was owing probably to the contraction of the heart. It adhered firmly to the heart. Upon examining the ventricles the left was found much larger, and firmer, and thicker than

the right, and very closely contracted. The heart was everywhere very pale in its texture, and contained but little blood. The lungs were but slightly altered from health. The right lobes were healthful, perfectly so. There was a small adhesion of the back part of the upper right lobe to the ribs. The lower lobe of the left lung was hepatized in a portion at its posterior part. Atleast its cut surfaces were perfectly smooth. It was firmer here than in health, and contained no air. Slight œdema was noticed in both lobes of this side. The anterior portion of the left lower lobe adhered to the pericardium as before related. This was very thin, being expanded over the sac. The lungs were very small, compressed into a very narrow compass by the distended pericardium. But except the portion of the left lower lobe and the œdema above-named, these organs were healthful. They were examined with much care that it might be ascertained if tubercles existed; but none were found. They were remarkably free from the post mortuary congestions in their lowest portions, which are so commonly noticed, and which may sometimes pass for disease, where symptoms have given us reason to suspect it, but of which no other mark is discovered on dissection.

Abdomen. A pint of straw colored fluid, it was said, was taken from the abdomen, at the beginning of the examination. Other effects of disease were subsequently found. Much lymph, similar to that which lined the loose pericardium, was found in and about the pelvis, more especially about the cœcum, by which this gut was slightly glued to the surrounding peritoneum. Its attachment was very slight to the parts upon which it was effused, and the peritoneum itself here was not noticably altered from its ordinary healthful, smooth, translucent condition. The intestines were healthful, and contained very little fœcal matter. The kidneys were large. The liver showed much disease. The change from its natural condition consisted in extreme hardness, increased size, its peritoneal covering being opaque, and in spots thickened, and of a fascia-like firmness. The spleen was natural, but the pancreas was large, and of a hardness which, when the knife passed through it, was semi-cartilaginous. The peritoneum everywhere, with the exceptions above given, presented its most healthful aspect, and there was nowhere either in the mesentery, nor intestines any marks of disease. The effusion was obviously recent, and had taken place a few days before death. It should have been remarked that much fulness of the abdomen marked its occurrence.

The above history is a long one. It was preferred to give it in a general way, that the more important points should have a distinct notice, rather than after the more common manner of a daily record of events. This case had for me interests aside from, or additional to, those which are strictly professional. I saw the patient very often and carefully noted all the circumstances which were presented. It has been seen that it was marked by three periods, two of them very distinct. These were so many paroxysms, with remarkable intermission of the symptoms: after the second paroxysm the relief was so great, the symptoms so much wanting, that it almost seemed that convalesence was taking place. The appearances, on dissection, confirm the diagnosis, and explain all the symptoms. Percussion discovered flatness about the heart; then there was circumscribed fulness; next, a disappearance of this fulness, with an extension of flatness across the sternum into, and at length over, the greater part of the right side. The breathing, its difficulty, its characters by auscultation, are also explained. The lungs were greatly compressed. The effort to overcome this characterised the breathing in a remarkable manner. It was a distinct forcing effort — a grunt — such as so commonly marks in children attempts to evacuate the bowels when costiveness exists. The sounds were transmitted by the distended pericardium. The swelling of the abdomen, and the pains there, especially in the last days of life, are explained by the effusions discovered after death, and by the morbid processes which produced them.

A question may arise, if so slight an affection of the knee, if rheumatic, (as has been supposed,) could have produced so grave and distinctive a disease of the pericardium as above described? It was slight, but sufficiently severe to render the patient lame, and to impose upon him partial rest for some days. It disappeared perfectly, and without the occurrence of pain in any other joint. Upon this ceasing of lameness, however, did the other troubles of the patient arise. The identity of the affection of the pericardium with that which at times is produced by or along with rheumatism, may be inferred by a striking fact in our history, viz., the recurrence of the disease in paroxysms, after intervals of remarkable freedom from symptoms. To be sure, this absence of cardiac symptoms was not accompanied by the appearance of the disease elsewhere, as in the joints. But this does not neces-

sarily happen in the unequivocal disease. It has been observed that the succeeding paroxysms are rarely, if ever so severe, as the earliest. They generally grow milder and milder, we are told, with increasing intervals, until they disappear entirely. This was not, in any sense, true in the above case. The intervals were indeed short, but in one of more than a week's continuance, the marks of amendment were the most satisfactory, and still the succeeding paroxysm was the severest. Finally, pericarditis does not seem to have its violence or danger determined by the severity of the rheumatism which may have preceded it; the mildest forms having been accompanied or followed by as severe cardiac disease as the most violent.

This article has extended too far already to be lengthened by the recital of other cases. But I may add that I have not seen pericarditis before at so early an age. Two years ago a case came under my care, in a delicate female, about twelve years of age. This patient was in the first place seized early in the winter with common inflammatory rheumatism, rheumatic fever, so called, in its severest forms. I do not recollect a case in which the affection of the limbs, and all of them, was so distressing, or so violent. Every characteristic of the disease was present. Such was the irritability of the intestinal mucous tissue, that the smallest doses of the remedies most depended on in acute rheumatism, produced the greatest distress. This was especially true of colchicum, calomel, and antimony, in all modes of exhibiting them. Griping, diarrhœa, bloody and mucous dejections were produced by them, however cautiously employed, and however combined with opium, &c, to diminish these effects. They were at length laid aside, and opium alone trusted to. The vinegar of opium was exceedingly grateful in its effects. Months passed before recovery. Pericarditis occurred during this attack, with its usual symptoms. She went to the sea-shore early in the next summer to recruit. Here she was again attacked with rheumatism, much less severe than in the first seizure, and during this, pericarditis soon became the leading disease. The rheumatism troubled her in a mild degree of it, for some weeks; the cardiac disease has yielded, gradually, to remedies and time; and now, at the end of nearly two years, she is very little annoyed by it, or rather by its effects. She walks freely, as much as three miles at a time without dyspnœa, or increased palpitation, and seems perfectly well. A dry, harassing

cough accompanied the disease during almost all its active periods. In this case the dulness on percussion was very extensive, with an obvious enlargement of the left side, and the bellows murmur was unusually loud, and uninterrupted.

Art. II. — Urea, Benzoic Acid and Xanthic Oxide in Diabetic Urine.

By Charles T. Jackson, M. D.

April 6th, 1834. I received from Dr M. S. Perry a wine bottle of diabetic urine for examination; and since my analysis, he has furnished me with the following account of the case. It is to be regretted that Dr Perry could not obtain permission to make an examination of the body of the patient after death, as every fact connected with this obscure, and generally fatal disease, is of the greatest value to the profession and the community.

'Perez Hamblin, aged 25, fisherman.

'I was called to him the 30th of March, 1834 — found him "in articulo mortis." The imperfect history which I obtained of his case from his wife, is as follows. Three years since, he injured his back by attempting to push a boat from the beach into the water. From this time he complained of acute pain in the region of the kidney. He, however, continued to work for three months without taking medicine. At this time his urine, which had been small in quantity, and of a high color, began to increase and become of a straw color. He now commenced taking Thompson's medicine, under the direction of one of the purchasers of his patent. He grew worse from that time till his death. The pain in his back did not increase, but his urine became more and more abundant, amounting some days to two or three gallons; his appetite for food and drink was voracious; he could not control it; his flesh wasted and his strength was diminished. Towards the last of his sickness his tongue was red and dry; skin dry; hands and feet cold; and great difficulty of breathing, but little cough.'

With respect to the existence of urea in diabetic urine, I would, in the first place remark, that Prof. Kane of Dublin, is the first and only person in Europe who has discovered its

presence in conjunction with saccharine matter, and it appears from his analysis, that sugar masks the urea so completely, as to render it extremely difficult to detect and separate. The process of fermentation was, in the following essay, taken advantage of, to convert the sugar into alcohol, and thus free the analysis entirely from this source of embarrassment. Benzoic acid exists in the urine of cows and other herbivorous animals. Scheele states that he had discovered it in the urine of children, but this has been doubted by Berzelius. Proust observes that it may be separated from urine in which it exists, either by evaporation and crystallization, or by distillation.

The bottle of urine furnished me by Dr Perry, was closely corked and set aside in the laboratory, until I should have leisure to examine it. Other engagements precluded the possibility of making an analysis of it for three weeks, at the end of which time, the bottle was taken, and with the intention of removing a portion for analysis, the cork was started, when it was driven forcibly out by expansion of gas, and rapid effervescence of the urine caused a considerable quantity to escape from the bottle.

The gas being examined by lime water, was found to be carbonic acid. The urine had lost all sweetness to taste, and when a portion was evaporated, no sugar could be obtained. Alcohol was present as was proved by its odor, and by distillation.

Hence, it appears, that the urine had undergone vinous fermentation — the sugar having changed into alcohol by this process. I thought this a favorable opportunity to ascertain if urea existed in this urine, as the sugar had disappeared by fermentation, and the alcohol produced, had preserved the animal principles from decomposition. For this purpose, I took an ounce of the urine and evaporated it to the consistence of syrup, and then added diluted nitric acid equal in bulk to the syrup. The greater part of the liquid, after a few hours rest, was found converted into crystals of acidulous Nitrate of Urea, which were separated by the filter. The fluid which passed the filter, was placed aside in the closet to evaporate spontaneously, and being examined the next day, was found to possess the aromatic odor of *benzoic acid*. In attempting to distil off the fluid in hopes of obtaining the acid, the whole was rapidly decomposed by the nitric acid with disengagement of nitrogen and nitrous gas. All the urine now remaining was thrown on the filter to separate the sedimentary

matter which it abundantly contained. This sediment was of a greyish color, and when dry became a compact mass. It is difficultly soluble, requiring 10,000 parts of water for solution. It is more soluble in hot water than in cold, and the water when cooling deposits this matter in powder. It reddens litmus paper feebly. When nitric acid is poured upon this substance in powder, it produces a deep lemon yellow color, and the sediment is dissolved. When this solution is neutralized by carbonate of soda, a precipitate takes place of a yellow color. From the above characters, we recognise this substance as *Xanthic oxide*, a substance exceedingly rare, having been only once found as a calculus by Dr Marcet, and never before in diabetic urine. The chemical characters and combinations of this substance are but little known, as its rare occurrence has prevented a sufficient quantity from falling into the hands of any chemist. The filtered urine, when evaporated and treated with nitric acid, gave signs of the presence of the Xanthic oxide. I had several years since, suspected the presence of Benzoic acid in diabetic urine, having perceived the odor of it while analyzing the urine of a diabetic patient, in the Massachusetts General Hospital in 1828. The present case gives countenance to the supposition, that it is of frequent occurrence in this disease, and should always be sought for in analysis of the urine. That the case above related, is one of true Diabetes mellitus there can be no doubt, from the phenomena which took place in the urine after it was sent me. I have the additional testimony of Dr Perry, that the urine had a sweet taste, especially when evaporated to the consistence of syrup.

Art. III. — No Religious Tests, in fixing Professional Merit.

The intense competition attending the present crowded state of the Medical profession, exhibits an admirable variety of expedients for attracting consideration and patronage. Ingenuity sharpened by necessity or stimulated by ambition, seems to be taxed to its utmost in devising means more showy and certain than studious habits and trustworthy character,

whereby to attain the honors and emoluments of the successful physician. Some of them consisting in harmless conceits of dress, deportment or equipage, or relating to the innocent pleasantries of life, are only amusing, or, at the most, ridiculous. Others are more offensive from the pretension and self-praise which they manifest, and others yet, are absolutely intolerable from the vulgar arts, the love of despicable intriguing, and the utter disregard of all the rules of honorable emulation, by which they are characterised. One man dances into practice, by figuring at balls and assemblies, another affects retirement, looks grave, talks only of cases, and endeavors to introduce himself on the impression that he is a very martyr of professional duties and cares, that he has no concern but for the ills of suffering humanity, and no interest in anything but the cure of them. A few act naturally, are neither fops nor slovens, carpet-knights nor ascetics, performing faithfully whatever of professional duty awaits them, without therefore or thereby disturbing the natural course of their other relations. For these, success, although it may be as certain, ultimately, is by no means so generally speedy and brilliant, as for the cunning artisté.

There is still a great deal of marvellousness among mankind, in regard to the practice of medicine, and the doctor is quite as frequently applied to and confided in as a species of conjuror, as because he is considered a philosopher.

But our introduction is diverting us from the object of it, which is to prepare our readers for the following curious ecclesiastical circular. It exhibits a method of *patient-getting*, by extra-professional expedients, which is by no means new, in its kind, but entirely so, we believe, in the formal and extensive manner in which it was attempted to be practised. It is no uncommon thing now-a-days to find the name of a medical aspirant, who is, and would otherwise forever remain, unknown to professional fame or desert, busily whispered about by the gossiping members of a church, to which he has lately attached himself, and manifested the peculiar devotedness of a recent convert, or to see him figuring conspicuously by name, or in person in some sectarian proceedings or exhibitions; and once, at least, as we have heard, that the young Hippocratic (do not miscall the word) saint, has been led by the pastor into church meeting, and introduced to the members, with circumstantial and verbal inuendoes, which could hardly be misunderstood, touching the duty of the Church towards '*her own*.' But

never before have we known or heard of a printed handbill being deposited in all the pews of a church, signed officially by two of the Deacons, and submitting it to the worshippers, as a religious duty, to give their patronage to a certain physician, for the reason that he is a sectarian religionist, and that *if* he can get a sufficient compensation in this way guaranteed to him beforehand, he will connect himself with their church and society.

Such, however, appears to have been the case with a circular, of which the following is an exact copy.

'Intrusting, as we necessarily do, our lives and the lives of our children in the hands of our Family Physician, we deem it important that he should be a man of *piety:* especially as his opinions, on subjects disconnected with his profession, will be likely to have great weight with our children.

'We have, therefore, thought it our duty to invite Dr Kittridge to connect himself with our Church and Society. As, however, his continuance among us will depend upon the amount of patronage he receives, it is thought desirable to ascertain what families and individuals are willing to employ him. He stands high as a physician and christian. His testimonials from New Hampshire, where he practised *sixteen years*, are of the first order.

'Will you be kind enough to inform either of the subscribers, within a fortnight, what you may consider your duty to be in regard to this matter.

'JOHN GULLIVER,
'CHARLES SCUDDER. } *Deacons.*'

'*Boston, March 8th*, 1834.'

If the only object of this extraordinary document had been to aid a worthy young physician in securing a deserved notoriety, the motive would have imparted a redeeming principle to the act, and in a great measure disarmed criticism, however objectionable the spirit and execution of the measure. But such a benevolent purpose might have been answered without the ungracious publicity attending an appeal to the church. The two gentlemen had only to recommend their protegé among their personal friends, and employ him themselves in example of the charitable duty they had undertaken to inculcate. We are not a little surprised, however, to find that the piety of the gentleman recommended has not been a passport to the family of either of the certifying Deacons, and that for

their own personal illnesses they both continue to seek advice from other persons.

We need not, however, go beyond the first sentence in the circular to find another purpose clearly disclosed, which is quite as discreditable, as the one just referred to would be praiseworthy in the Deacons. No one can read that, keeping in mind the sectarian tactics and technicals of the day, without coming to this understanding of it. 'Whereas, the unreserved and confidential intercourse to which the physician is necessarily admitted, affords many excellent opportunities to make or perpetuate religious impressions; and, whereas, we have found Dr Kittridge to be a man of *piety*, i. e. to profess the same religious opinions and feelings which we hold, and wish to propagate, nothing can be more desirable than that the society should support him as a physician, while the church has the advantage of his domiciliary visitations as an exhorter and propagandist.' Herein is the whole vice and mischief of the transaction we are considering, that, although something is said in the circular, respecting the gentleman's medical character in a distant place, his strongest claim for patronage there presented, is his *piety*, which every one knows in this place means *orthodoxy*, and his supposed readiness to abuse the privileges of his profession to the unworthy purposes of sectarianism. No man should be trusted as a physician, or in any other capacity, who does not maintain a character of integrity and honor; but beyond this, his claims for patronage should be made to rest altogether on scientific attainments, habits of faithful observation, and of kind attention to the sick.

How absurd, to make orthodoxy or heterodoxy a better passport to medical emoluments than physiological science — punctuality at the conventicle, than perseverance in the dissecting room, — the study of Dr Watts, and the Missionary Herald, than of John Hunter and the Medical Magazine.

Such a method of determining the qualifications of physicians, if generally introduced, would put a stop to all improvement in their art, by removing the principal stimulus to study and investigation. Nor would its effects be less unfavorable to their moral, than their medical character. What a temptation to hypocrisy, in the first instance — to mould opinions to that form in which faith and thrift will be most likely to be associated, and afterwards to sanctimonious demeanor, cant and undignified proselytism, all which tend to make a man despise himself, and to undermine every noble quality of character.

Sectarianism has, in our day, assumed a new and very mischievous trait of conduct. Formerly, however obstinate and bitter, its influence was observed only in ecclesiastical affairs, or what are denominated 'spiritual concerns.' But now it has entered the circle of secular affairs, with the absurd and wicked intention of regulating alike the civil, social and domestic arrangements of life by the application of religious tests, and introducing among the various religious denominations of our community, the same narrow and antisocial relation which formerly existed between the Jews and Samaritans.

The transaction which has occasioned these comments is a bold manifestation of this design, and we would further improve the opportunity it presents, by exhorting our brethren of the Medical profession to resist and discountenance the introduction of the exclusive system into their department of duty. All men should be *religious:* but as few as possible *religionists.* All the duties and relations of life should be hallowed by the *spirit* of religion; but most of them are only encumbered and they are too often disfigured by its *offices* and *forms.* For these, as for every thing else, there are 'times and seasons,' and appointed functionaries, which good taste, as well as scripture precept admonish us to respect.

Physicians have now delivered themselves from the reproach of infidelity which was but lately attached to the profession, — let them not incur that of bigotry and exclusiveness, which is surely but little if at all preferable. And, especially, let them eschew the suspicion of hypocrisy, which will always be entertained when men are observed to make their religious opinions a means of worldly thrift and pecuniary emolument.

But rather let them add to their *faith* that *charity* which all the experiences and offices of their profession so affectingly inculcate, and do all in their power to encourage and expand the fraternal sympathies of their race, which the spirit and operations of sectarianism are attempting to chill and contract.

We had intended to add a word or two of special advice to the Doctor and his Deacons; but time and the prescribed limits of our pages, compel us to be content at present with having offered our readers the perusal of the new species of medical certificate, and such imperfect comments as occurred to us, — and repeating our protest against the policy of this 'new measure,' we leave the parties to all the satisfactions and emoluments, spiritual on the one side, and temporal on the other, which may result from their '*experiment.*'

COLLECTANEA.

Dupuytren's Clinique on Diseases of the Testicles.

The art of a surgeon, Gentlemen, consists not only in removing those parts of the body which nature has stricken with death, but also in preserving such as the negligent or ill-instructed practitioner would not hesitate to take away by operation. How many unfortunate creatures return from the field of battle, having suffered more under unskilful hands than from the cannon shot! We might also cite many hospitals, where the rage for operating has produced the death of numerous victims. For example, how many surgeons do not hesitate to remove limbs affected with white swellings, without caring whether the lung be the seat of tubercles or other morbid alterations!

Objections to the Early Removal of Testicles. — Preliminary Trial of Medical Treatment.

This love for operating never appears so strong as in cases of engorgement of the testicles; yet surgeons might have remarked, that sadness, grief, and melancholy, almost always lead to the tomb those who have suffered this cruel mutilation. I had often been struck with this deplorable event, and for several years have attempted to render the operation unnecessary, by ascending to the original disease. We are in the habit of receiving every year at the Hôtel Dieu, at least 100 patients affected with enlargement of the testicles, and the greater part of these is dismissed cured, without our being obliged to have recourse to the operation. You may see several patients at present in the Salle St Marthe; in some the engorgment is situated in the epididymis; in others the body of the testicle is affected; finally, in other cases, both the epididymis and testicle are engorged. In these different examples, the swelling was thrice produced by a blennorrhagia, and in two instances it came on without any antecedent discharge.

Case. — A month ago, one of these individuals came to the morning consultation to receive advice for a tumor which occupied the right testicle. This organ was six times larger than it is in the healthy state; when handled, we felt its substance much more hard than is ever experienced in cases of hydrocele, while

on the surface we could readily distinguish projections and irregularities which are almost a certain sign of the existence of scirrhus. The weight of the testicle was considerable. When questioned on the cause of his disease, the patient attributed it to a contusion of the organ.

In the greater number of these cases, I have occasion to be convinced that enlargement of the testicle arises from external violence, from some old venereal affection, or from a scrofulous diathesis: hence I make it a rule never to practise the operation before I have employed the treatment which I think appropriate to the cause of the disease, for a month or six weeks. The first account given by the patient, made me conjecture that the swelling of the testicle depended on some external violence, and the antiphlogistic treatment was therefore considered the most appropriate. The constitution of the man was not such as could lead to the idea of a scrofulous taint; we therefore applied leeches to the tumor, and covered it with an emollient cataplasm; ordered broth and a guarded diet. The patient returned in some time without having experienced the slightest benefit. He was advised to repeat the trial of the above means, but it was equally unsuccessful as the former. When admitted into the hospital about a month ago, he was examined a second time with care; from some expression which dropped from him, we suspected an old syphilitic affection, and the anti-venereal treatment was immediately had recourse to. The patient was directed to take the *Compound Decoction of Sarsaparilla*, with 4 or 6 oz. of *Sedorific Syrup*, and one of these pills, three times a day: —

℞ *Deuto Chloride Hydrarg.* $\frac{1}{8}$ to $\frac{1}{2}$ gr.;
Opii gum. extr. $\frac{1}{2}$ gr.;
Extrac. Gayac. 2 gr.

Being convinced by experience that the small doses act more efficaciously than the larger, we gave three pills every day, containing each one-eighth or one-sixth of a grain of corrosive sublimate, so that the patient gradually arrived at the full dose of $\frac{1}{2}$ a grain. Generally, in about one or two months, the accidents are all dissipated by this mode of treatment, but in the present case, although steadily persevered in, it was not of any avail. The testicle had, on the contrary, increased in size; it was heavy and rough: the patient experienced lancinating pains, which extended along the chord up to the loins. In this state it was thought dangerous to defer the operation any longer. I had ventured to announce beforehand, that some fluid was thrown out into the cavity of the tunica vaginalis, but this symptomatic hydrocele is not the main disease, which consists in an enlargement of the proper substance of the testicle. It is probable that the alteration is not far advanced, for if we can believe the pa-

tient, the swelling commenced only three months ago: had it been of a year's standing, I would not hesitate to say we should find the testicles softened, grayish, and presenting all the forms of medullary cancer.

But how was the organ to be removed? The answer is very easy, and the process at once extremely sure and quick. An incision is made anteriorly and posteriorly, commencing as high as the inguinal ring, and carried down to the lower and posterior part of the scrotum. In scirrhus enlargements, the testicle is often not the only part affected, but the disease frequently attacks also the spermatic vessels of the chord, hence the incision commences at the inguinal canal, in order to follow those vessels if they be diseased. The incision also crosses the whole length of the organ, that the testicle may be the more readily disengaged; for if the incision were only two or three inches long, the dissection necessary to isolate and remove the testicle would be extremely difficult. The prolongation of the incision behind is also easily understood, for if it did not extend in that direction, the scrota when empty and contracted would form large sacs for the accumulation of the pus. As soon as the incision is made, we proceed at once to take up the vessels, for as the spasm and action of the cold air may make them retract, there is danger of subsequent hemorrhage being produced by the return of the blood and heat. The vessels are tied; the testicle should be elevated a little, and the scrota held on one side by the assistant; the chord should now be dissected, and if any more vessels are opened, they are also to be taken up, or the flow of blood may occasion infiltration, inflammation, the formation of abscess; and we should be obliged to tie them as a last resource. All the cellular tissue which envelops the testicle, chord, membranes, and even the cremaster muscle, should be carefully removed. The chord is now examined; if healthy, it is to be divided above the testicle, but if not sound, the incision must be carried a long way above the diseased part.

Cause, Progress, and Treatment.

In cases of enlargement of this latter part, we must, in the first instance, employ antiphlogistics. Should these be unsuccessful we may try discutients, and finally, derivatives; these are the three fundamental means. Thus in the acute stage, the antiphlogistic method is sufficient to dissipate the bad symptoms; one, two, or three bleedings, according to the patient's strength; twelve, fifteen, or twenty leeches, frequently applied, with baths, emollients and severe regimen. These means are so efficacious that we have often seen enlargements disappear in eight or ten days under their influence. Should the engorgement be chronic from the outset, or have passed from the acute to the chronic

stage, we commenced with emollients, and then order discutients, such as diachylon plaster, or the mercurial soap plaster ; but the cure will be very tedious and slow, unless we join at the same time derivatives, and purge the patient every two or three days. Calomel, a medicine so often abused, is here an excellent remedy ; or, instead of calomel, we may give a good dose of castor oil about six o'clock in the evening ; other purgatives, as the sulphate of soda, &c, may also be given with advantage.

By these means we are generally able to dissipate enlargement of the testicle, but when they are not employed perseveringly, the organ is apt to become cancerous, and its removal indispensable.

The cause which determines enlargement of the testicle may depend on a scrofulous diathesis ; and it would seem, at first sight, easy to distinguish them from those of a venereal nature ; however, we must confess that in many cases they commence absolutely as the others, and only assume their true character after a period of time more or less considerable. In general they do not yield to ordinary treatment ; they are extremely tedious, and often exist with other affections of the same nature, connected with the scrofulous constitution.

The tubercular degeneration is one of the principal characters of this kind of enlargement : in most cases it affects the fibro cellular tissue which surrounds the epididymis, or may arise in the substance of the testicle. The tubercles are developed slowly, and may exist for two or three years : their development, progress, and duration, are symptoms by which we may discover their true nature. These tumors are less hard than scirrhus, but more hard than those of an inflammatory kind; they are not accompanied by heat or redness, and give rise to a sensation of weight and numbness ; the subcutaneous cellular tissue is usually unaffected ; the tumor is commonly unequal and irregular in its general form, while, in scirrhus enlargement, the testicle is globular, and the epididymis knotty ; the spermatic chord is sound, but in some cases it is also attacked.

As the disease progresses, various points over the anterior of the organ become soft, and when we touch it, we have the sensation of touching a soft body. In a short time small projecting blue points form on the surface ; these portions of the skin ulcerate, and the openings discharge a serous pus, a cheesy, yellow, pultaceous matter, which is evidently the product of the scrofulous affection. Fistulous orifices are now formed, and give issue to a serous, ill-conditioned pus. At this period we can have no doubt on the nature of the disease, which may continue for several years. If the constitutional affection can be combated and arrested, we soon see a change for the better take

place in the organ; but if the means employed should not have this fortunate effect, the testicle becomes soft, fungous, and is converted into a tissue similar to that which we see round articulations affected with white swelling. The scrofulous testicle may pass into the cancerous state but this termination is rare.

When the testicle has arrived at this degree of disorganization, we can easily comprehend how nothing but extirpation can cure the disease, provided that it is confined to the organ. When once the swelling is known to be of a scrofulous nature, and inflammatory symptoms which exist must be combated, and we must then have recourse to general hygienic means, which are often more efficacious than any medicines. The patient should choose for his dwelling an elevated situation, dry, and exposed to the south; he must cover himself with flannel from head to foot; and the body should be constantly rubbed with a dry flannel; exercise in the open air, or under the sun, should be taken at the same time; he should use a strengthening diet, of game, &c., with antiscorbutic vegetables. Acids, whether mineral or vegetable, acid and farinaceous vegetables, should be interdicted; his drink may be composed of an infusion of wild chicory, and the tops of the hop leaf. If the patient's constitution be remarkably lymphatic, we recommend syrup of gentian, prepared with water, instead of that made with wine or ammonia.

Other remedies may be also administered. Latterly *iodine* and its preparations have been recommended; it is given in the dose of one-eighth, one-sixth, one-fourth, or one-half a grain, in distilled water flavored with peppermint. The virtues of iodine, as of all other new remedies, have been wonderfully exaggerated; it is a medicine which succeeds in very many cases, but which should by no means be regarded as a panacea; externally it may be employed in the form of hydriodate of potass in ointment or lotion.

When the surgeon does not wish to employ this remedy, he may have recourse to sulphur baths, or to salt aromatic applications. It will also be useful to inject the same fluids into the fistulous passages, taking care that they do not pass into the cellular tissue. By these means, continued for a long time, and assisted by occasional applications of the cautery, we may often cure scrofulous enlargement of the testicle.

But if, in spite of these remedies, the testicle should arrive at an advanced degree of disorganization, if it tend to become scirrhus, or soft and pulpy, if it contain numerous scrofulous masses, we should not hesitate to remove the organ, after having first treated the constitutional disposition. Without this precaution, the patient would be exposed to the danger of perishing

from secondary accidents, as pleurisy, pneumonia, suppuration of the liver, &c.

After the removal of the testicle, if we examine the alterations which have taken place in the organ (when the cancerous degeneration does not exist), we find the sound parts distinctly separated from the diseased; here and there we find numerous masses of scrofulous matter, and a white, demi-fibrous, demi-cellular substance, containing coagulated albumen. We also see tubercles, or masses of tubercular matter, inclosed in mucous cysts, or isolated. The alterations most commonly exist in the cellular tissue surrounding the epididymis, in the epididymis itself, in the testicle, but very rarely in the chord.

Venereal Swelling of the Testicles.

Besides the two species of enlargement of which we have just spoken, there exists a third, the venereal swelling. Latterly, Gentlemen, some surgeons have wished to treat venereal affections exclusively by the antiphlogistic method, but they seem to have forgotten that in these diseases two essential conditions exist, the inflammatory element and the syphilitic element. Without doubt the first symptoms which declare the existence of syphilis are of an inflammatory nature, and should consequently, be treated by the antiphlogistic method, which sometimes dissipates them altogether; but we commit a great error if we believe the disease to be radically cured. As long as the syphilitic element remains there is danger of a relapse. I could cite innumerable examples which demonstrate that persons attacked with syphilis, who were not willing to employ the appropriate treatment, have had, subsequently, ulcerations of the throat, exostosis, enlarged testicle, and other symptoms, which have yielded to anti-syphilitic remedies. None of you can forget the history of the three young pupils who inoculated themselves some years ago with the pus from a venereal sore. All the symptoms which first appeared were dissipated by an antiphlogistic treatment; but after some time, those of a secondary venereal affection broke out with such violence, that one of the pupils terminated his existence miserably with his own hand; the two others came to consult me, and were treated and cured by anti-syphilitics.

By what sign can we recognise a venereal enlargement? Every day we have patients coming into the hospital with enlargement of the testicle, for which they cannot assign any cause. They have never suffered any contusion, or met with a fall; the engorgement has passed from one testicle to the other, where it has remained to the time of their entrance, or has always been stationary. Well, if the tumor be elongated, or have a cylindrical form, if it do not determine lancinating pains when touched, and if the patient have been at any time affected with venereal

disease, clap, bubo, &c.; if he declare that one testicle, after having been six months, or a year, or eighteen months, affected, has returned to its normal state, while the other testicle immediately was seized, you have strong reason to presume the disease to be venereal, for if the swelling were cancerous it would not be subject to this metastasis, which is a pathognomonic character of these venereal enlargements.

A fact of no less importance to be noted is, that in case of relapse, when a cancerous testicle has been removed, the chord in most cases becomes diseased, while in syphilitic enlargement it is the other testicle which becomes effected. Should a general examination of the patient disclose other symptoms, as pustules, exostoses, &c, the case is beyond doubt.

But even if we are unable to pronounce decidedly, is it not better to employ an anti-venereal treatment for six weeks or two months, than to practise an operation at once useless and fatal in its results? The existence of a specific venereal virus has been denied in latter times, as I have already mentioned to you, yet experience seems to have proved its existence incontestably, and the belief so generally adopted could only be overthrown by a mass of subtleties. Admitting syphilis to be an inflammation, how can we account for its communication in the great majority of cases? Is not this a characteristic phenomenon in which it differs from all other inflammations? The distinction which I have laid down between the specific inflammatory portion of the disease, is essentially practical, and explains the reason why individuals treated by the antiphlogistic method are affected with all the symptoms of constitutional syphilis six months, a year, or even more, after the period of their pretended cure.

The venereal element is therefore a real, positive virus, capable of being communicated like that of the small-pox, and they indulge in a fatal error, who regard only the inflammatory portion of the disease, in combating which they may indeed destroy the effect, but leave behind them untouched the original cause of the disease. — *Lancet.*

Wardrop on the Abstraction of Blood.

Differences in the Effects of abstracting Arterial and Venous Blood.

The abstraction of blood is employed as a remedial means, either for the purpose of diminishing the action of the heart and arteries in inflammatory diseases, or for the removal of a surplus quantity of the sanguineous fluid, whether venous or arterial, in particular organs wherein there is what has been called 'plethora,' or a congestion of that fluid. A quantity of blood may

also be abstracted in some diseases where the qualities of the body have become changed; but whatever explanation may be given of the effects of bloodletting, there is no doubt of its multiplied results in the treatment of disease, whether the fluid be removed from the system by art, or by a 'spontaneous hemorrhage.'

Blood may be abstracted either from the *venous* or from the *arterial system*, but I am not aware that much attention has been paid to distinguish the difference of the effects which are produced on the system, by taking blood from an artery and from a vein, though it can readily be conceived that such difference may be considerable. The chief reason which is usually given for opening arteries in preference to veins, has been that the blood may be obtained more directly from a particular part, and in larger quantity, and more promptly, than it would be by opening a vein. But as almost the only vessel on which arteriotomy has been performed is the temporal artery, we know little of the effects of abstracting arterial blood, except when it has been taken from that vessel. The result of my own experience has been unfavorable to arteriotomy; having found that the inflammatory symptoms recur much more frequently after a certain quantity of blood has been removed from an artery, than if an equal quantity have been taken from a vein in the arm; and I know that this observation coincides with the experience of some others.

There are, however, cases where the difficulty or even impossibility of procuring the requisite quantity of blood from a vein, renders arteriotomy an indispensable and important operation for the abstraction of blood.

A little reflection on these two modes of bleeding, may to a certain degree explain how this difference of effect is produced.

When blood is abstracted from an artery, there must be an immediate diminution in the supply of blood to the part nourished by that artery; but such is the vigor of the anastomosing branches, that the supply of blood thus cut off is very quickly restored. It is not so if a vein be opened, for it does not necessarily follow that the *arteries* of a part increase in activity, in order to supply the blood abstracted from the *vein*. Both these facts are confirmed by observation. If one of the carotid arteries be tied, almost immediately the temporal and occipital branches of the carotid of the opposite side may be distinguished through the integuments, dilating themselves, becoming tortuous, and struggling, as it were, to circulate an additional quantity of blood.

I was first led to remark this in the case of a child, on whose carotid artery I had placed a ligature for the cure of a large

nævus on the cheek. Almost immediately after the operation, I observed the arteries from the opposite side of the head enlarging, increasing in their action, becoming tortuous, and actively employed in supplying the place of those vessels whose channels had been obstructed. Indeed, it was the knowledge of this power in the anastomosing branches, when a trunk is obliterated, that led Hunter to perform the 'high operation,' as it is called, for popliteal aneurism. The same phenomenon is exhibited in the eye. If an artery on the sclerotic conjunctiva, passing into a speck on the cornea, be divided, immediately vessels will be perceived, stretching across the cornea from the opposite side, to supply the place of the vessel which was divided.

The whole arterial system, by a wise provision of nature, whenever the supply of blood to one part is diminished, makes an effort to throw blood by another to the part which has been deprived of its natural quantity, and thus the action of the heart and arteries must be more or less injured; whereas the abstraction of blood from a vein is followed by no such increased action of the arterial system, — there is no local diminution in the supply of arterial blood, — no effort made by the arteries to supply the place of the venous blood which has been removed. On the contrary, a diminution in the supply of blood to the heart by the veins will, as I have just observed, have the effect of diminishing the vigor of the heart's action, and also that of all the arterial system.

The effects of opening the temporal artery in puriform ophthalmia may be instanced, as well illustrating the difference between arterial and venous depletion for the cure of inflammation. An eye injected with red vessels, will be suddenly relieved by opening the temporal artery, and the conjunctiva will become quite pale, inducing one to suppose, that the inflammation is subdued. But I have generally found, that sooner or later, even in a few hours, the inflammation has returned, and I think others, particularly Dr Veitch, have made the same remark. Whereas, when, in that disease, a vein in the arm is opened, and blood is taken to the full extent, the good effects of such depletion are permanent.

There is, therefore, a distinct and important difference between the changes which take place in the action of the vessels of a part, when blood has been taken from an artery and from a vein, and it explains the difference which I have always found in the employment of those two different modes of abstracting blood. It is also extremely probable, that there must be a difference of effect from the kind of blood which is taken away, — that the removal of a pint of arterial blood will produce a different effect on the system from the removal of the same quantity of venous blood. What these differences are I do not pretend to know, but

one proof that the abstraction of venous blood is the most useful in the cure of disease is, that in those natural or 'spontaneous hemorrhages which are so salutary, such as those from the nose and hemorrhoidal vessels, the blood which is discharged appears to be chiefly venous. Where leeches and cupping are had recourse to, it no doubt happens that they remove both arterial and venous blood at the same time; but the circumstances under which those operations are performed, do not furnish us with any opportunity of discriminating the comparative effects of the abstraction of venous and arterial blood. Another point which you ought to bear in mind is, that the temporal arteries as they pass over the zygoma of the temporal bone, can only be once opened at the proper point for the operation. For arteriotomy is not like venesection, — the wound made in the vein uniting, and leaving the canal of the vessel entire; whereas when an artery is opened, it is requisite, after taking the necessary quantity of blood by the wound, to divide it completely in order to allow it to retract, that the blood may be stopped, for, as shall be afterwards shown, it is improper to attempt to do this by compression alone. The canal of the artery becomes, therefore, by the operation of arteriotomy, completely obliterated, and as the circulation is afterwards carried on by a greater or less number of enlarged branches, neither the original trunk nor a branch of sufficient caliber will be found in the temporal region, on which the operation of arteriotomy could be repeated, should such a measure be deemed necessary.

Mad Houses.

The abuses in these establishments in England still seem to be great, and have occasioned a petition from a benevolent individual, (we are glad to see any body act now-a-days in his individual capacity on such subjects) that Parliament would prescribe the following plan for their management :—

'Your petitioner, therefore begs permission to suggest to your Honorable House, the propriety of putting all madhouses, both public and private, under the management and entire direction of a Medical Board, consisting of twelve persons; nine or ten of that number to be physicians, and the remainder civil engineers. Three members of this Board — two physicians and one civil engineer — to be required to visit four times a year, at irregular intervals, every asylum in the united kingdom.

'That correct reports of the history and treatment of every insane case be required to be transmitted monthly to this Board, in

London. That such reports would serve to stimulate the diligence, and to expose the neglect, of the medical attendants, and to improve and equalize the mode of treating the insane.

'That, at each visit, the travelling physician ought to be required to examine every individual patient, and to ascertain the correctness of the reports transmitted to the Board. Such a regulation would prevent the possibility of any insane patient being long unnecessarily confined. A report or summary of the practice in every asylum, both private and public, ought to be published annually by the Medical Board.

'All the acts of the physicians and civil engineers ought to be done in public, except the visits of the physicians to the insane patients.

'The business of the civil engineer will be, to examine whatever relates to the buildings, to the accounts, and to the domestic economy of the establishment.

'That, at the first attack of the disease, the patient ought to be sent to an asylum, or privately put under proper restraint and suitable treatment, in order to prevent the disease from becoming incurable from injury done to the structure of the brain.

'In the higher classes of society, as well as among the poor, the insane are frequently detained at home, in consequence of the fears, the ignorance, and the prejudices of their relations, and sometimes from the self-interest of the medical attendant, until the disease from morbid organization becomes incurable.

'Your petitioner humbly submits to the consideration of parliament, whether or not a much larger fine ought to be imposed upon the rich, than what is now imposed, by the existing law, upon the overseers of the poor, who neglect to put their relations and friends under such restraint and medical treatment, as is essential for their safety and recovery. Your petitioner is, from ample experience, convinced that, after curing the bodily disease, incident upon the first attack of insanity, nothing contributes more towards removing the mental alienation, than employment suited to the circumstances and habits of the patient. The method of verifying this observation will be, to compare the number of patients cured in mad-houses, placed under similar circumstances, where employment is extensively used, and where no recourse is had to it.

'Your petitioner, therefore most humbly prays, that your Honorable House will adopt the measures herein suggested, or such other measures as may appear to your wisdom most efficacious, to secure to the insane judicious and humane treatment during confinement, and the most speedy restoration to their friends; and your petitioner will ever pray.'

'Caleb Crowther, M. D.'

Med. Gazette.

M. Bennati, who has lately distinguished himself by his researches and ingenious essays on the voice, was thrown from an unruly horse on the Boulevards, in Paris, a few weeks since, and killed. He was 36 years old at the time of his death, and his funeral was attended with the honors usually awarded on such occasions to scientific men in that country.

M. Dupuytren has returned from his travels, entirely restored, and was welcomed to his place in the Academy by a select committee appointed for the purpose.

The chair left vacant by the death of M. Delpech, has been recently filled. M. Serres obtained the place, says the Gazette, by a stormy *Concours*.

The Parliamentary committee on Medical Reform, of which Mr Warburton is chairman, were in diligent session at the last dates, examining witnesses and receiving documentary evidence. The *Licentiates* of the college are represented by a committee of the 'association,' instituted to prosecute the measure, and they are permitted to interrogate the witnesses, under examination.

The cholera has made its appearance in New-York during the last fortnight; but the cases have not been numerous, although the form of the disease appears to be quite as malignant, some physicians think more so, than when it prevailed there so extensively two years ago. It does not appear to have occasioned much alarm among the citizens. Some cases have also appeared in most of the towns on the river and on the route between the city and the lakes. There are no indications of the disease in Boston, and the city is very healthy for the season.

Description of the Plates in no. I.

a Frontal Bones.—*b* Parietal Bones.—*c* Occipital Bones —*d* Temporal Bones.—*e* Styloid Process of the Temporal Bones.—*f* Malar Bones.—*g* Nasal Bones.—*h* Os Unguis.—*i* Superior Maxillary Bones.—*j* Inferior Maxillary Bones.—*k* Mamillary Bone.—*l* Left Spinous Processes of the four upper dorsal vertebra united into one.—*m* Spinous processes of the vertebræ split and turned to the right and left, laying open the spinal canal.—*n* Bodies of the vertebræ.

MEDICAL SCHOOL IN BOSTON.

The Medical Faculty of Harvard University announce to the public, that some important changes have been made during this year, in regard to the term of Lectures in that Institution, and the conditions of Medical graduation; by which the necessary expense to students is diminished, while the opportunities of instruction are at the same time increased.

By a recent vote of the Corporation and Overseers, two courses of Lectures are now required for a Medical degree, one of which at least must be attended in this University, and the other may be attended at any respectable incorporated Medical School, in which the same branches are taught.

The Lectures will begin on the first Wednesday in November, and continue thirteen weeks, after which time the regular course will be considered as terminated. But for the following four weeks, the Hospital and the Dissecting-room will be kept open, and some Lectures will be given, without additional expense, to such students as may choose to remain.

A new Course of Lectures on the Principles of Surgery and Clinical Surgery, has been established, and will go into operation this year. The addition of expense arising from this Course, is considered as more than counterbalanced to non-resident students, by the reduction of the fee for the Course on Anatomy, and by the diminished term of necessary residence.

By an additional act of the Legislature of Massachusetts, passed during their late session, the opportunities for the study of Practical Anatomy are now placed upon the most liberal footing. While the violation of sepulchres is prevented, it is anticipated that an ample supply of subjects for the wants of science will be legally provided at a small expense.

The following Courses of Lectures will be delivered to the Class of the ensuing season —

Anatomy and the Operations of Surgery.	John C. Warren, M. D.	$15
Chemistry.	John W. Webster, M. D.	15
Midwifery and Medical Jurisprudence.	Walter Channing, M. D.	10
Materia Medica.	Jacob Bigelow, M. D.	10
Principles of Surgery & Clinical Surgery.	George Hayward, M. D.	10
Theory and Practice of Physic and Clinical Medicine.	James Jackson, M. D. & John Ware, M. D.	15

The Massachusetts General Hospital is open without fee to students attending the Lectures of the physicians and surgeons. This Institution contains about sixty beds, which are, most of the time, occupied by patients who are subjects partly of medical, and partly of surgical treatment. Clinical Lectures are given several times in each week, and surgical operations are frequent. The number of surgical operations during the last five years has averaged about seventy in each year.

To the Medical College is attached a Medical Library, a costly and extensive Chemical apparatus, and Collections illustrative of Midwifery, Materia Medica, and Healthy and Morbid Anatomy.

Boston, July, 1834. 1st Nov. WALTER CHANNING, Dean.

MEDICAL MAGAZINE.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

M. DUPUYTREN'S REMARKS ON FALSE ANEURYSMS OF THE BRACHIAL ARTERY.

THE following remarks by M. Dupuytren on false aneurysm of the brachial artery, in connection with the subject of venesection, cannot fail, we think, to be read with interest. We are all, probably, too prone to estimate the importance of operations by their magnitude and their rarity; forgetting that the minor duties of the surgeon, however individually trifling, acquire from their frequency a character of serious importance; and that a risk, which in itself is so small as scarce to be appreciated, may, if daily and hourly recurring, be somewhat formidable. Serious accidents from bleeding are indeed astonishingly rare, considering the great frequency of the operation, and the careless manner in which it is often performed: but still the risk of wounding a nerve, the fascia, or the artery, are real; and if the degree of this danger can be diminished by any precautions, or by varying the ordinary mode of practice, it is truly worth our while to know it. By the following observations it will be seen that M. Dupuytren never bleeds in the vein under which the artery lies, preferring even to seek a vein in a different limb, to incurring the danger of wounding this vessel. The caution of so able and bold a practitioner should not be neglected, and the experience on which this is founded, as stated by the able Lecturer himself, cannot but be worth attention.

IT seems to be an opinion, Gentlemen, entertained by many practitioners, that venesection is too simple an operation to merit any peculiar attention; and this view results from the kind of contempt with which the ministering part of surgery is treated. Such is the cause of the numerous accidents we

have witnessed within the last twelve or fifteen years. Our hospitals are filled with pupils, who neglect to bleed when an opportunity is offered, and these are followed by a still greater number of young men who become externes, without ever having seen the operation practised. How often do we see, both in the wards of a hospital, and even in private practice, the skin perforated by five or six incisions, without the vein being opened! It is to this awkwardness that we should attribute the phlegmonous inflammations which so frequently supervene in cases of this kind, and the great number of phlebites which have become common since that period, although the disease was formerly comparatively rare. Neglect of cleanliness, and the bad condition of the instrument, are often an additional cause of these dangerous results; finally, to a disregard of these first principles, we are to attribute the formation of those diffused or circumscribed arterio-venous aneurysms, to which we have often directed your attention. You have already seen two individuals operated upon and cured of similar aneurysms, and we shall, no doubt, have an opportunity of showing you additional cases in the course of the year. I can safely affirm, that for the last six years not one has passed by without my being consulted at least twice for accidents of this kind, and if we suppose the same proportion of cases in the practice of other surgeons, you may form an idea of their frequency. However, this accident may be prevented by very simple precautionary means. You should lay it down for yourselves as a principle — 1st. That the operation should not be performed before the pulsations of the artery are felt. 2nd. That the vein which lies over the artery, should never be opened, but that another must be chosen.

It is true that others are sometimes found with difficulty, and do not always give as much blood as we could wish, but these are very slight inconveniences, when compared with the accidents just alluded to. Surgical writers are in the habit of employing the term *false aneurysm* to designate a tumor formed by the blood contained, either in the sheath of an artery, or in the cellular tissue surrounding it. The disease sometimes manifests itself immediately after the wound, but on other occasions an interval more or less prolonged exists between the injury and consequent aneurysm. The disease has been distinguished into two species — 1st. *Primitive* or *diffused* aneurysm; 2nd. *Consecutive* or *circumscribed* aneurysm, differences which are founded on the period and manner of effusion of

blood from the cavity of the vessel. There are other distinctions, which depend on the parts composing the aneurysmal cyst; these belong exclusively to false consecutive aneurysm. Sometimes the parietes of the sac are formed by the surrounding cellular tissue; the lamellæ of this organic element, distended by the blood, which is extravasated slowly, and drop by drop, are applied one upon the other, and form at length a cavity of varied dimensions, which communicates with the wounded artery by a narrow aperture. In other cases, the sheath of the vessels cicatrizes during the use of the bandage, while the edges of the wounds occupying the inner coats either remain separated, or if they touch are not united by a solid cicatrix. When the compressing apparatus is removed, the lateral impulse of the blood elevates the cellular sheath, and separates it from the middle coat, so as to form a cyst for the aneurysm. In other cases, again, the edges of the wound are united by a newly-formed membrane, the product of an albuminous exhalation. You will find in books, reports of cases where the wound of the vessel was for some time obliterated by a small clot of blood, the circumference of which corresponded to the edges of the wound, its base to the sheath, and its apex to the current of the blood; but as soon as this clot is displaced, either by any movement of the limb, or by the impulse of the circulating fluid, a circumscribed false aneurysm is formed. I have frequently had occasion to see patients affected with sacciform false aneurysm, and who were treated by Anel's method; in some the operation failed, and was repeated a second time; and one patient was obliged to submit finally to amputation.

True aneurysm, Gentlemen, of the brachial artery at the fold of the arm, is a disease which is extremely rare; it would indeed seem, that the case reported in the clinique of Pelletan, is the only authentic one on record. The two observations of Paletta and Plagani are not sufficiently detailed or precise. We may say the same of the cases contained in Hodgson and Saviard. This is not the case with respect to primitive or consecutive false aneurysms occupying this region. The awkwardness or distraction of pupils while bleeding, frequently gives rise, as I have mentioned, to a wound of the artery, and for a long time no other species of aneurysm was known. Galen, Celsus, Aetius, have described them, and the means to be employed for their cure. It is astonishing how operations of the kind could have been so often repeated without giving some idea of the circulation. Even for a long

time after the period of that great discovery, it was not known by what means the course of the blood was carried on, after the main trunk of the artery had been tied. The anastomoses of the vessels were not well established before Heister's time; up to that period the cure was explained on the supposition of a second brachial artery. Sharp particularly supported this theory, but Molinelli, in the Acta of Bologne, and Charles With, pointed out the agents of collateral circulation with sufficient precision. At a later period the injection of a limb, in which the brachial artery had been spontaneously obliterated, furnished Pelletan with an opportunity of demonstrating the passage of the blood through the anastomosing branches. Half a century has produced immense ameliorations in this part of the science; at the present day everything is laid down with precision, and the surgeon has to pursue a course which is fully established on experience.

The most common cause of false aneurysm of the brachial artery is, as we have said, the injury of the vessel during the operation of bleeding. The accident is often the effect of a mistake. In some subjects the artery is very superficially placed, and resembles the vein, in volume and general appearance, very closely, but by placing the finger on the vessel, you feel the pulsation which distinguishes it. Every vein which runs in the neighborhood of an artery, and in the same direction, should be avoided. MM. Sanson and Begin, in their excellent treatise on operative medicine, say that we ought scarcely ever to bleed over the place where an artery passes; but I say, never open the vein in such a situation. I have always protested against the practice pursued by many surgeons of opening the brachial vein, and have shown that phlebotomy should be performed on any other vessel rather than that; in short, when it is not easy to find one in the fold of the arm, it is better to seek a vein in the fore-arm or even the hand. The brachial artery may be injured by the lancet in different ways. Sometimes the instrument penetrates the two vessels, artery and vein, at a point where they are not exactly in juxta-position, and an effusion of blood takes place. Sometimes the wound establishes a communication between them, and gives rise to an arterio-venous or *varicose* aneurysm; the latter species differs from all the others determined by the same cause. The considerations which you have just heard have arisen from a case of this kind which presented itself the other day, of which I shall now give you a brief history.

Case. — False Consecutive Aneurysm of the Brachial Artery, produced by Bleeding.

A man, forty years of age, of good constitution, was bled about a month ago, by a sage femme, who perforated both the vein and artery; the blood spouted forcibly to a great distance, and was of a ruddy color. In general the jet of venous blood does not exceed one or two feet, and very rarely reaches three, but when an artery is opened, the stream is much more rapid, and sometimes we see it driven to the distance of five or six feet, mounting to the ceiling or staining the opposite wall. The manner in which the vital fluid escapes is also calculated to throw light on the nature of the injury. It is discharged by jerks, quite different from the uniform stream of venous blood, at least in the commencement; it may however happen, that the jerking appearance of the jet depends on the immediate position of the vein upon the artery; in such case the pulsations of the latter are communicated to the former, and at first view we might think the artery was opened. I remember to have been called upon several years ago, in all haste, by a distinguished physician, who had just bled one of his patients; he thought he had wounded the artery, because he saw the blood escape in a jerking stream. I soon discovered the cause of the error, but the physician still persisted in his opinion, and even to the present day, believes the artery to have been injured. It appears the midwife recognised the nature of the accident in the case of which we speak, for she immediately applied strong compression over the wound, by means of a tight bandage and graduated compresses. The fore-arm and hand of the patient soon became swollen and numbed, probably in consequence of the bandage, and I also perceived a large ecchymosis, produced by the effusion of blood into the cellular tissue. The opening made into the artery was, to all appearances, very small, and its edges were brought close together by the compression employed. About three weeks elapsed before the aneurysm began to develop itself, being first announced by the formation of a small tumor, which presented a sensible movement of advance and retrocession, corresponding with the arterial pulsations, and at the end of a month it had acquired the magnitude of a pigeon's egg. On examination we found that one half of the tumor was prominent, while the other moiety was concealed in the substance of the arm.

You may here ask, how was this tumor formed? When

an artery has been wounded by a cutting instrument, as a lancet, the edges may be brought together by compression; but when this is removed, and the patient begins to move his arm, the blood separates the edges, the flood escapes, pushes before it the lamellæ of the cellular tissue, and, finally, forms a sac; the latter gradually enlarges, and communicates by a small opening with the interior of the vessel. This has taken place in the present instance; the blood was at first compressed, it then acted on the vessel, escaped, formed a sac, and now the symptoms of aneurysm are disclosed. If you take a side view of the tumor, you will easily see its elevation and depression, and the finger when placed on its summit is equally raised alternately. The movements become more apparent when the arm is flexed; on the contrary, when it is firmly extended, the pulsations are masked in a great degree. Some years ago it was thought that these two symptoms indicated, in a certain manner, the presence of an aneurysm; but we now are convinced that they may arise from the manner in which a tumor is situated over an artery; hence the arrest of pulsation on compressing the vessel is not to be regarded as a positive sign. If you continue your examination of the patient, you will see that the tumor terminates in a point where the skin is very thin. Should inflammation set in, the results might be dangerous; the skin would become more thin, might give way and produce an hemorrhage of a fatal nature. We are, therefore, compelled to employ a quick and efficacious means for preventing a termination of this kind. Compression has been already tried without success; besides, this method requires a great delay, and may determine gangrene. In the present case, moreover, it is inapplicable on account of the thinness of the skin; we are, therefore, compelled to have recourse to the ligature. But how apply it? Without doubt it would be more certain to place two ligatures, above and below the wounded point, because we should thus avoid the re-establishment of the circulation by the collateral branches, which sometimes takes place after operating by Anel's method; but this is attended with several inconveniences. In fact, after having suspended the course of the blood by compression, it would be necessary to incise the skin over the tumor, open and empty the sac, seek the wound of the artery, which is not always easily found, and tie the vessel without embracing the nerve; in doing which we are much embarrassed by the effusion of blood. Even supposing the operation attended with

the desired success, we make a large wound in the integuments, which may determine inflammation of the parts.

We remarked how much the operator is embarrassed by effusion of blood; this circumstance is of sufficient importance to arrest our attention for a few minutes. During the course of a surgical operation, we are almost always certain of arresting the circulation of arterial blood by compression; but the venous blood is not acted upon. The reason is simple: in one case we have only a single vessel to occupy us, in the latter it would be necessary to compress a multitude of different branches before we could hope to command a venous hemorrhage. Since the double ligature, although more certain, is long, and presents many difficulties, we are necessarily compelled to employ the method already spoken of, and which consists in placing a single ligature above the tumor. This process is attended with much fewer inconveniences than the former, for it enables us to avoid the infiltration of blood and most of the obstacles just noticed. Hence it is now generally employed; but I must warn you that it is certain of failing, if applied where the artery communicates freely with collateral branches. We have frequent occasion to observe this in aneurysms of the primary carotid or its subdivisions. The ligature placed below the tumor in this case will at first suspend the pulsations, but they soon return; and a similar result may arise in aneurysms situated in the fold of the arm.

Operation for the Aneurysm. — Ligature of the Vessel.

Having thus called the attention of the pupils to the anatomical disposition of the parts, M. Dupuytren proceeded to the operation, which he performed in the following manner: — the patient being extended on his bed, and the affected limb demiflexed, an incision three inches long was made on the inner and inferior part of the arm; the skin, cellular tissue, and aponeurosis, were successively divided; a very small artery was cut during this step of the operation. Having arrived at the sheath of the vessel, the operator seized it with a forceps, elevated it, and opened it with a bistoury. The opening into the sheath was now enlarged, to the extent of two or three lines, with the bistoury directed on a grooved sound, and the extremity of a flexible silver sound, was passed under the vessel; this latter served to guide a needle-headed stylet armed with a ligature. In order to avoid injuring the nerves and veins which accompany the artery, the instrument conducting

the thread should always (M. Dupuytren observed) be introduced between these parts and the artery. The operator now drew the ligature gently, and the pulsations of the tumor immediately ceased: they returned on the ligature being relaxed. Being now certain that the injured vessel was comprised in the ligature, it was drawn tight and fastened with two simple knots; the wound was then cleaned and its edges were brought together by a bandage. M. Dupuytren advised not to dress the wound definitively, until it was certain that the small artery would not furnish any hemorrhage. During the whole period of the operation the patient never uttered a single cry, a circumstance showing that the nerves were not included in the ligature. Although a ligature was applied in the present instance with much facility, we could not prevent ourselves from feeling a little uneasiness for the patient: the caliber of the artery was very small, and it was possible that two brachial arteries existed, as we had once occasion to remark, and communications might thus exist between the superior and inferior ends of the vessel. The vein was very large and tense: and as this appearance did not depend on any compression, it was to be feared that a small narrow opening between the artery and vein, too small to produce a bruissement, existed. No symptom, however, of such a communication appeared during the operation. For ten days compression was employed by means of a pyramidical compress, after which the dressings were removed to examine the tumor; it had diminished a little, and did not pulsate in the least. Five days later the wound was nearly united, with the exception of the point through which the thread was to be discharged; in short, everything announces that the operation will be followed by success.

Case 2. — A hawker, about thirtytwo years of age, and of a dry and strong constitution, was bled for a violent headache; the right brachial artery was opened at the same time with the vein. The surgeon recognised the accident by the scarlet color of the blood and the alternate elevations of the stream. He permitted the blood to flow until the man fainted; after this he applied strong compression, sufficient to prevent any new hemorrhage, and recommended the patient to continue it, without informing him of the nature of the accident. The wound made in bleeding soon healed, and the patient, thinking that all danger had passed away, suspended the compression. A tumor now appeared at the fold of the

arm, and acquired daily greater magnitude. When the patient entered the hospital, it was as large as the fist; it was round, uniform, circumscribed, fluctuating, and presented movements isochronous with those of the pulse. These movements, which were very manifest when the limb was flexed, ceased entirely on its being extended. Compression exercised above the tumor also arrested them. These facts proved, 1st, That the opening made into the artery was small; 2d, That it did not communicate directly with the aneurysmal sac; 3d, That the tumor received blood by one vessel only; and, 4th, That the greater part of the fluid contained in it was coagulated, and, consequently, that compression, if well applied, might effect a cure. This method was therefore tried, and seconded by the application of ice, but as it failed to produce any sensible amelioration, the operation was had recourse to at the request of the patient. In the present instance the operation was performed in the amphitheatre before the pupils. The patient sat in a chair, and M. Dupuytren placed himself behind the arm, in order to permit the pupils to see better; he then determined the position of the artery, and made an incision two inches long, about the same distance above the vessel; he now divided slowly the skin, subcutaneous cellular tissue, aponeurosis of the arm, inner edge of the biceps, and, finally, came to the cellular sheath enveloping the artery and nerves. The sheath was gradually divided on a grooved sound, which also separated the artery from the median nerve to which it was contiguous. This part of the operation was completed in a few minutes; but on the instant the patient fell into a state of semi-syncope, the pulsations of the heart diminished, and those of the artery were completely arrested. In this state an error was to be apprehended, and for a quarter of an hour the operator hesitated between the nerve and artery. The circulation, however, soon became re-established, and the isolated body was recognised to be the humeral artery: a ligature was passed under it, and before being drawn tight, the operator assured himself that it was capable of arresting pulsation in the tumor, and that the patient experienced no pain. The lips of the wound were united by slips of plaster, a simple dressing applied, the patient carried to bed, and the tumor covered with ice.

In the evening the skin of the limb had recovered its natural temperature, and the patient passed a good night; he merely complained of a pricking in the fingers. The next

morning pulsation was felt in the radial artery, then ceased, and again returned. The application of ice was continued. On the 5th day the dressing was removed, and we discovered the existence of an erysipelatous inflammation, which subsequently extended to the arm and fore-arm. The ice was now suspended, and the inflammation combated by blisters placed over the points most affected. This remedy succeeded in removing the erysipelas. On the 8th day the tumor opened spontaneously, and discharged a mixture of pus and blood for several days. On the 10th the ligature came away without any hemorrhage. On the 15th day the different openings which existed in the aneurysmal tumor were enlarged by a single incision, and the clots of blood removed. Some hemorrhage now supervened, which was arrested by plugging the wound. Suppuration was fully established on the following days, and the dressing being changed, nothing came away except pus. From this moment the wound began to contract; the opening through which the ligature was discharged cicatrized, and there merely remained a small opening leading to a narrow cavity, the remains of the aneurysmal sac. The motion of the arm and hand was gradually recovered, the patient was able to write to his friends, and he left the hospital perfectly cured, after two months' treatment.

Remarks. — You may, perhaps, be inclined to ask whether the forcible extension of the arm, by which the pulsations of the tumor were arrested, if assisted by the application of compresses and ice, might not have rendered the operation unnecessary. But this constant extension would have been extremely fatiguing and painful, and might have given rise to anchylosis of the joint. Compression and cold would, doubtlessly, have been useful, but it would have been necessary to continue their use for a very long time; besides, these two means are not always free from danger. The operation, such as it has been described, was adopted after a careful examination of the tumor, which removed all idea of a varicose aneurysm. Its duration was occasioned by the fainting of the patient, and by the inconvenient position in which he was placed. I myself was obliged to remain for a long time bent in a most fatiguing posture, and the manner in which the patient's arm was extended horizontally, caused the blood flowing from the divided parts to trickle into the bottom of the wound and obscure the view. Thus the difficulties, which in this case I created myself in order to afford you better oppor-

tunity of witnessing the operation, should not serve you as a rule of conduct. For such an operation as this, the patient should be laid in bed, and his arm, placed freely in supination, should present to the surgeon a surface readily accessible to his fingers, instruments, and eye.

The phenomena which pass during the re-establishment of the circulation by the anastomising branches, have not been well understood. I have satisfied myself that the blood arrives below the ligature for a long time before the artery presents any pulsation. The distention of the vessel and development of its elasticity constitute the first period of the re-establishment of the circulation; after this we perceive a slight thrilling, which is very irregular, both in respect to strength and quickness. This re-appears after a longer or shorter interval, and indicates in a certain manner the return of the heart's influence. This second phenomenon, which has always been regarded as a proof of the success of the operation, may disappear after sometime; thus I have, in many cases, seen the circulation arrested fifteen days, one, two, or three months, after the operation, and gangrene supervene; but I should at the same time remark to you, that I do not know a single example of gangrene following the ligature of the brachial artery, when the nerve was not tied. The most common accident which succeeds this kind of operation, is the re-establishment of the circulation in the tumor, and when this takes place, we must tie both ends of the vessel. The erysipelas by which our patient was attacked deserves your notice. In this case, as in many others, the employment of blisters was attended with complete success. I shall make but one observation on the removal of the ligature; it came away on the tenth day, while in the case of another patient, operated on, at the same time, for an aneurysm of the crural artery, the ligature did not come away before the 25th day. You can readily understand how the period at which the ligature is discharged must vary according to the caliber of the artery, the degree of pressure exercised by the thread, and the greater or less quantity of cellular tissue which it embraces.

Case 3. — A young man, twentytwo years of age, was bled in the median basilic vein by a physician, who transfixed the artery through the vein; a scarlet-colored stream immediately issued with great force from the wound. Having at once perceived the nature of the accident, he applied over the wound-

ed point a graduated compression, which at first arrested the hemorrhage, but it soon returned, and was several times renewed. The patient now presented himself at the Hotel Dieu, and nine days after the injury a tumor of the size of a nut, soft, fluctuating, and pulsating isochronously with the heart, was perceived at the bend of the arm. On compressing the artery above, the pulsations were arrested; when the vessel was compressed below, they, on the contrary, increased. The existence of an aneurysm was thus clearly indicated. The wound in the vein was healed, and nothing led to the idea that the latter vessel communicated with the artery. As the ligature was the surest means of alleviating this unfortunate accident, it was practised on the following day. The patient was placed in bed, the arm being in a state of supination, and an incision two inches and an half in length was made along the course of the artery, above the joint. The subcutaneous cellular tissue was now found infiltrated with blood; the fibro-cellular sheath, which encloses the artery and median nerve, was thick, dense, and easily torn; a large vein running across the incision was divided, and the vessel and nerve were exposed. A ligature was passed between them by means of a grooved sound and stylet, and we thought that nothing was embraced in it except the artery; however, on raising up the two extremities of the stylet, in order to assure ourselves that the vessel alone was comprehended, the patient experienced great pain, followed by numbness along the branches of the nerve. The artery was now separated from the nerve by a careful dissection, and the ligature drawn tight; this occasioned no pain whatever; the pulsations of the tumor instantly ceased, and the circulation was arrested in the fore-arm. The edges of the wound were now brought in contact, and the thread was placed in one of the angles, and some lint with a bandage was applied. This case soon terminated favorably; the fore-arm always preserved its natural color and temperature. On the third day pulsation commenced in the radial and ulnar arteries, but did not extend to the tumor. On the tenth day the ligature came away, and on the nineteenth the patient was able to leave the hospital. — *Lancet.*

Dr Stokes on Painters' Colic and Tremblement Mercuriel.

I have been for some years in the habit of treating Painters' Colic in a routine way, and can speak from experience of its success; of course this treatment is to be modified by circumstances. Suppose a patient applies to you with violent pain about the navel, a hard and retracted state of the abdomen, obstinate costiveness, and the other symptoms which characterise an attack of painters' colic; the first thing I would advise you to do is to prescribe a full opiate. Many persons would object to this, and say that there is constipation enough already, and that opening the bowels would be much more likely to give relief. But opium does not here add to the constipation; indeed, so far from doing this, it sometimes acts as a laxative. At all events, it is a remedy which is perfectly unobjectionable. Give, then, in the first place, a full opiate; it will have the effect of relieving the patient's sufferings, and will enable you to gain time for the employment of other means. The next thing is to place the patient in a hipbath, and keep him in it as long as possible. Do not neglect this, for I know of nothing that gives more decided relief. I have often seen cases where the patient was quite easy while he remained in the bath, but experienced a return of the pain as soon as he left it. If you have no means of procuring a bath in this way, the next best thing is to have recourse to emollient stupes containing some narcotic, after the manner first introduced by my colleague, Dr Graves. One of the best of this kind is the tobacco stupe; if you cannot get this you may employ poppy-heads for the same purpose. The tobacco stupe is much better than the tobacco injection, because its effect can be more easily regulated, but in violent cases I am in the habit of combining both, employing the stupe during the paroxysms of pain and throwing up a tobacco enema every four or six hours, until a decided impression has been made on the symptoms. In the success which has attended my distinguished friend Dr O'Beirne's treatment of tetanus by the use of tobacco we see an analogous effect. In this way you will succeed in giving relief; you should also prescribe a brisk cathartic, and this you may do without any fear of injuring the patient, or exciting intestinal inflammation. The insensibility of

the intestines to the stimulus of even powerful purgatives is a curious feature in this disease, and bears strongly against the idea of its being connected with any inflammatory condition of the tube. In the Hospital La Charité the treatment is routine; it consists of an emeto-purgative plan, which is continued day after day until the symptoms yield. The purgative we employ in the Meath Hospital is croton oil, combined with castor oil and mucilage, or given in the form of pill. When the bowels have been freely acted on, the case generally goes on well. After the bowels have been opened, we continue the employment of the hip-bath, the narcotic stupes, and anodyne injections, taking care at the same time to persevere in the use of purgatives.

Andral makes a good remark on this point. 'Here (says he) are cases in which, from some peculiar alteration in the state of innervation, the mucous surface of the bowels is rendered less sensible than in its ordinary condition, and can freely bear the stimulus of powerful purgatives. May not this condition also occur in other states of the economy? We are, therefore, led to conclude that purgatives are not, in all cases, direct stimulants.'

Painters' colic has been treated in Paris by bleeding and leeching, but this has not been found so successful as the ordinary purgative plan. I have never seen a case in which general bleeding seemed to be called for except one, and this was a most violent case which had resisted the ordinary means of treatment for fortyeight hours. I recommended bleeding from its well known antispasmodic power; a quantity of blood was taken, and soon after the purgatives began to act, and the patient got relief. With respect to leeches, I have employed them only in those cases which are accompanied with symptoms of fever and gastric irritation; where there is quick pulse, hot skin, foul tongue, thirst, vomiting, and epigastric tenderness. In such cases I have applied leeches, but my experience of them is, that the relief afforded is by no means so great, or so decided, as in cases of intestinal inflammation, and it is a mode of treatment which I do not by any means rely upon for removing the disease.

In addition to these measures, I have seen much benefit result from the application of blisters and frictions, with stimulating liniments to the spine. It is also of importance to remove the clothes in which the patients have worked; they are frequently charged, saturated with lead, and have a considera-

ble tendency to keep up the disease. I have so often seen an attack of painters' colic reappear shortly after leaving hospital, and without any evident exposure, that I could only attribute it to the circumstance of their garments being saturated with the lead.

In the foregoing plan of treatment there is nothing new; it is, in fact, a routine practice, but it is one which is borne out by the results of pathology, and which, from long experience, I can strongly recommend. I may also remind you that the plan of treatment followed in the hospital of La Charité, which has more cases of this disease than any similar institution in Paris, is completely routine.

Mercury, under certain circumstances, will produce a most extraordinary affection, on which I shall here make a few observations. The disease is not of very frequent occurrence, but it is of importance in practice to be able to recognise and treat it properly. It is a proposition well known to almost every one, that many bad effects have resulted from the abuse of mercury; and I need not tell you how many persons are injured by the empirical employment of this potent drug on all occasions and in all constitutions. It is a common opinion that mercury acts principally on the capillary and absorbent systems, but there can be no doubt that it also acts upon the nerves, and that in a very remarkable manner. I have seen cases where the constant use of calomel has produced a marked derangement of the nervous system, manifested by great irritability, tremors, hysterical excitement, and hypochondriasis. You will see in the various works on toxicology an account of the effects produced by mercury on persons employed in quicksilver mines, and on tradesmen, such as looking-glass manufacturers and others who come in contact with mercury. I shall read for you the notes of a remarkable case of this kind, which was sometime back under treatment in the Meath Hospital. It may be called a form of the paralysis agitans from the effects of mercury. Similar cases have been described.

A man, aged fortysix, was admitted into one of our medical wards in October, 1833.

He stated that, from the time he was eight years of age, he had been employed in a looking-glass manufactury, and that his occupation principally consisted in what is technically termed the silvering of mirrors. In this process the operator's right hand is repeatedly immersed in a vessel filled with mercury, while the left fixes a sheet of tinfoil, on which the metal

is rubbed. Artisans while thus engaged are in the habit of using a muffle, which covers the mouth and nostrils. This the patient said he had never used, because he found that those who were in the habit of wearing it did not enjoy better health. For thirty years he continued to enjoy tolerable health, with the exception of some bleeding from the gums, with shooting pains and a sense of formication in various parts of the body, accompanied by a slight loss of power in the hands, which came on at various times, and was generally relieved by the use of ardent spirits. He had been frequently salivated, and when admitted had lost nearly all his teeth. The mode in which he lost them was this, gum-boils formed close to the roots of the teeth, which soon after dropped out, and in this way the local inflammation subsided. About three years ago, he had an attack similar to that for which he had been admitted; he went into the hospital and was put under an active antiphlogistic treatment with relief. From that time up to the period of his admission, he had enjoyed tolerable health, except that the sight of the right eye was considerably impaired, and that his memory was slightly affected. He forgot the names of persons and places, and was frequently at a loss in endeavoring to recollect the persons to whom he had lent his tools. On being brought into the hospital, he presented an extraordinary specimen of human suffering, and I was at first unable to give his complaint a name, the case being the first of the kind I had seen. It exhibited the phenomena of a violent spasmodic affection; it was different from tetanus, or hydrophobia, or hysteria, but it bore some faint analogy to chorea. The head, arms, and fingers, particularly on the left side, presented a succession of quick, convulsive, jerking motions. The angles of the mouth were retracted, the eyebrows twitching, the head constantly thrown back, but the agitation scarcely raised the arms. The nostrils were spasmodically dilated. The sterno-mastoid, trapezius, scaleni, diaphragm, and the abdominal muscles were similarly affected. Their contractions were short, rapid, and painful. From the constant hiccup with which the spasms of the diaphragm were attended, and the jerking motions of the tongue, his speech was interrupted and indistinct. He was occasionally free from spasms altogether, but whenever he transmitted volition to any part of the muscular system, it became instantly affected. When he endeavored to raise his foot from the ground, it quivered and fell quite powerless and useless. Whenever he attempted to carry a vessel to his lips, he generally overshot the

mark, carrying the vessel towards his ear, nose, or forehead, and spilling its contents over his face or neck, so that it was a common saying among the patients in the ward, that he did not know the way to his mouth. But if a vessel was applied to his lips by another person, he could swallow easily. A sudden blast of cold air, the application of a cold hand to the skin, or the abrupt entrance of any person into the wards, brought on an attack of spasms. The muscles of the left hand and of the left side were affected much more than those of the right. The mental powers were not impaired, the patient was intelligent, and seemed anxious to communicate the particulars of his case. During the whole course of the disease he retained a full power over the urinary discharge and defecation. There was some slight tenderness on pressure over the fourth and fifth dorsal vertebræ, but the rest of the spine exhibited no increase of sensibility. His skin was cool and dry, his pulse quick, weak, and small, his bowels inclined to be costive, but easily moved by laxatives. Here we see a marked difference between this affection and painters' colic.

The treatment adopted in this case was very simple. Leeches were applied to the tender part of the spine, the patient was placed in a warm bath, and got some laxative medicine, followed by an opiate. He was also ordered to have a large flannel shirt, and to be placed in a warm, comfortable bed. He passed the night tolerably well, and next day appeared to be much improved. I shall not continue the daily reports of this case, but shall merely mention, that after a few days a great improvement took place. The spasms of the left side continued, though much less severe. Those of the purely voluntary muscles on the right ceased, while the spasms continued in the respiratory muscles on this side. We found that all the muscles of the face which have been called respiratory by Sir C. Bell, the platysma, scaleni, pectoral, and intercostal muscles, and the diaphragm, were thrown into violent spasms, while the purely voluntary muscles remained in a state of perfect quiescence. I am not aware that this circumstance has been observed in any other case. As far as it goes, it tends to corroborate the views of Sir C. Bell. In the treatment of this case we employed narcotic frictions, particularly those composed of the extract of belladonna, to the spine, with considerable benefit. The patient was cured by very simple means, and at little expense to his constitution.

Lond. Med. and Surg. Journal.

Of Drinking Cold Water in Hot Weather.

[Communicated for the Medical Magazine.]

Dr Rush has a short but interesting essay on this subject; from which some *remarks* will be borrowed, and to which others will be added.

Dr R. says, that the mortality from the above cause falls chiefly on the *laboring* part of the community. The reasons are obvious; and particularly when poor and uneducated persons come here from foreign countries, where extremely hot weather is little known.

In Philadelphia, Dr Rush says, that the case seldom happens, unless when the thermometer rises above eightyfive degrees of Fahrenheit in the shade; and, in his 'account of the climate of Philadelphia,' (printed in the same volume with the above Essay,) he states, that the temperature of the deepest springs of Philadelphia, is fiftytwo and a half of Fahrenheit. In New England, deep springs may be several degrees lower in temperature; thus making a greater contrast between the heat of the air and the coldness of the water.

The symptoms produced in *violent* attacks from the above cause are, dimness of sight; inability to walk without staggering; shortness of breath, the nostrils and cheeks being much in motion when breathing; rattling heard in the throat; the face flushed with blood, which seems discolored, as if from a blow; cold extremities; the pulse scarcely perceptible; and death following in four or five minutes, if relief be not instantly obtained. In *less severe cases*, there are spasms or cramps in the breast or stomach, sometimes so as to produce fainting, but coming generally by intervals; and the longer are the intervals and the shorter the spasms, the better are the prospects of recovery.

The above *artificial disease*, for such it is, is not produced only by *water*, when cold; but by punch, by beer, and even by toddy, when sufficiently cold.

Dr Rush, for the cure, confines himself to *Liquid Laudanum*, taken in great quantities, from a tea-spoonful even to a table-spoonful, given gradually; though he admits the aid of the remedies used for the recovery of persons supposed dead from drowning. The patient, he says, should have as few assistants round him as possible. If diseases follow in the breast or liver, they are to be treated as in other cases.

Dr Rush gives the two following *directions* to those who cannot sufficiently command themselves, when thirsty in warm weather. First, they must attempt to lessen the danger, by clasping the vessel, holding the water, if of *metal*, *glass*, or *earth*, with both hands, for a minute or longer; in order to warm the liquid and cool the body, as much as possible in this manner. Secondly, if the liquor comes from a pump or spring, he advises the face and hands to be washed with a little of the cold water, before drinking it.

To these *two remarks*, the following may be added. 1st, Let a little of the liquor be taken at a *time;* that is, by *mouthfuls*, and be swallowed only when it has been *warmed* in the mouth. 2d, None should drink in these cases while *sitting still*, but they should keep walking about; that the blood in the coats of the stomach may be *changed as fast as possible;* warm blood supplying the place of cold blood. 3d, It is madness to boast of the *coldness* of the liquor, and to look to any indulgence in *this* point; for the only proper object to be sought after is to *lessen the thirst.* 4th, If warm water be at hand, a sufficient quantity of it may be *put into the cold liquor.* If a river or stream also, exposed to the sun, be near, water taken from it is much safer, than cold water from a pump or well. The rowers on the Mississippi river, drink warm water out of the river, when they are hot, without inconvenience; and persons, *working near furnaces*, and whose bodies are supplied from heat *from without*, suffer less from the refreshing liquors they take, than others; especially if the liquor drank has stood for any time within the influence of the heat from the furnace; and perhaps daily habit may lend its aid in these cases.

Those who tell us, that there is no danger in *bathing in a river in warm weather*, may be correct as to the fact in some cases, but they must be careful in the inferences they draw from it; as *four* important circumstances may be forgotten on this occasion. 1st, While those who mean to bathe, undress themselves, the body is likely to be reduced in its temperature. 2d, The river in which they are to plunge themselves, may be essentially *warmed by the sun;* its particles by turns being much exposed by the current to the sun, and whatever particles are warm seek the surface. 3d, The bather generally *exercises* himself by swimming. 4th, The cold water of the river does not enter the *stomach;* and the exterior parts of the body are generally habituated to changes of temperature.

Again: In certain *Bathing Houses* in London, persons are known to rush from a warm bath into a cold one which is at hand; but this does little injury to the *outside* of the body; and the bather quits the cold bath, as soon as he finds it unpleasant; the *stomach* in the meantime being left free from attack.

Surprise, also, has been expressed at the well known practice of the *Russians*, who run out of their hot stoves, while in a sweat, in order to roll themselves in the snow; but the stomach is here safe; and the snow, being rough, touches the body in comparatively few points, and gives room for friction. Nevertheless this practice may be one of the causes of the particularly *short lives* of a portion of the Russian population, as noticed in a recent publication by Sir Frances D'Ivernois of Geneva; especially as in certain parts of the Russian territory, great instances of longevity have been reported by others.

But to proceed to a more important question; we observe that some have proposed *other remedies besides liquid laudanum;* but as the writer of these observations is ignorant of their success, he is silent on the subject; only observing that paragoric elixir (tinctura opii camphorata) probably may be used with, or even without, the liquid laudanum.

I have heard of a precaution for those laboring in hot weather, which seems worthy of notice: namely, to use cool water *while the party is cool;* but when the party begins to grow warm with labor, then to use the proper safeguards.

Dr Rush says, that a printed paper containing an account of the cautions recommended by him, was posted by the Humane Society, on pumps in Philadelphia; and that death from drinking cold water had become a rare occurrence *for many years* in that city. Deaths from this cause, however, being common in *other* places, the Humane Society must extend its exertions. In the month of June also every newspaper in the Union ought annually to give exhortations on this subject; and instructors of youth, including those in Sunday schools, should not forget the subject at that period.

Perhaps it may be of use to add, with respect to *horses and oxen*, that we may easily save them from mischief during their labor in hot weather. They may be allowed to drink only a little at a time, especially where the water is cool; they may be made to move about at the moment; and if the water be cool, there will be no injury if they remain for a while in it, and especially in a state of motion. When water-

ed at a pump or well, it is easy to regulate matters for them, both as to time and as to quantity. Respecting *dogs*, these animals cannot *drink*, but *lap* their liquor by little and little; and commonly they soon get into motion after doing this. When they bathe in the water, the stomach is still free from difficulty.

Before concluding, I may remark, that what has been said above has been chiefly *prudential*, with some regard to symptoms and to treatment. But in the present age, we should not stop here; and therefore, a few miscellaneous facts will be added, on which it is left for others to remark. 1st, Cold water applied to any of the vital organs, besides the stomach, is likely to be soon fatal; but why is it only fatal in the stomach when the *whole body* is particularly warm, when taken in considerable quantities? 2d, Though the rich in warm seasons take ice-creams and iced water, it is generally done gradually and in moderation; but are there no accounts of accidents where the poor in great cities, in warm countries, use American ice, or their own mountain snow or ice, in immoderate quantities? 3d, In hot countries, the water of their *springs* is not cool enough to do mischief; such water being of the *medium temperature of their warm climate*: and hence, they can only suffer when their water is cooled by *art*. 4th, It has been said that in the Northern Arctic regions, some of the inhabitants living on *oily food*, are fond of *cold* water in *cold* weather. 5th, Some of the Arabs are said to be averse to drinking much of anything in warm weather; and all observing persons use the same caution. 6th, Some persons to *prevent* thirst, are said to chew hard biscuit and hard crusts, in order to fill the mouth with saliva. 7th, The Persians in Gombroon, are said, in hot seasons, sometimes to sleep in water; and Dr Franklin used to remain long enough in his warm bath to read there, and (I think it is said) at times to take a nap there.

These are small remarks, but a *beginning* is wanting, and every little adds.

Though the distress from drinking cold water in hot weather has been called *artificial;* there is a *natural* disease attending unusual spells of hot weather; namely, affections of the blood vessels. To avoid this we may observe, 1st, that the habits of living attended with health in hot countries, should be resorted to, and *there* a vegetable diet generally prevails. 2d, The bowels should be kept well open, particularly with saline medicines, as Glauber's salts. 3d, When the head feels

heavy and there is a tendency to sleep, the breathing is laborious, and there is a disinclination to bodily exertion, purgatives, and even bleeding may be proper; and violent motions should be avoided. 4th, Dr Rush's use of common salt in the way of diet may be worth noticing. (See his Essay on this subject.) When hot weather ceases, things may return to their usual courses.

Extra Uterine Conception, and other Anomalies.

[Read by Dr George B. Doane to the Boston Society on Medical Improvement.]

In all severe disease, we generally witness a principle in nature, which seems to be implanted there, to obviate in part its influence, and sometimes to modify, and point out modes of cure, and sometimes even to accomplish it; and were we more familiarly acquainted with these indications, we should doubtless have more control over the multiplied diseases which now exist. In inflammation or congestion we witness this principle, — sometimes in checking its progress by producing adhesions to prevent its extent, and then by its universal purpose to advance outward rather than within, and thus find safe outlet and relief. How often salutary hemorrhage from distant parts relieves, or critical perspirations effect a cure; — how often vital parts are preserved by metastasis of disease, to parts less important; and in scrofula, how often do we witness its tendency to destructive disease of lungs, arrested by local inflammation in the joints and elsewhere? But why multiply examples, when such cases as extra uterine conceptions exist, those cases more strange, incomprehensible and anomalous than any and all others which prevail? Why, in these cases, does not the fœtus proceed longer than the ninth month? Its vessels of circulation and nutrition remain unchanged even until the moment of death. There is more space for growth, and it seems strange it does not first destroy the parent and then die itself — but this is not so. At the appointed time, as it cannot be born, it must be disposed of and removed, and nature must accomplish it; and in many cases she does it with perfect safety to the mother. The details of the case I now allude to, are such as are often heard of; I will not detain you, therefore, with very minute particulars concerning it.

Mrs. S. the patient, had been a widow for six years, and was thirtyfive years of age. She married, and after two years found herself to be pregnant; from her previous good health and easy confinements, she apprehended little danger, nor much suffering. At length the full time was completed, and labor pains commenced, continuing two days and nights, but not so severe as materially to diminish her strength. After that all motion ceased, and pains diminished, and she resumed a little her accustomed duties; and supposed that she had made mistake in calculation, and that the proper period would, in course of time, arrive. After a week, to use her own language, pains changed to occasional distress, but all the functions of the system seemed a little to improve; her appetite and digestion became better, as if the system must be renovated for some new duty to be required of it; and this continued for four months, without perceptible diminution of the (uterine) tumors; it then gradually diminished, and a peculiar odor was observed in all the excretions of the body; the urine, perspiration, &c. manifestly showed this; and after two years it seemed to be reduced to as small a compass as could be, for all the soft parts seemed removed, and the bony tumor only felt. At first, she could move it from side to side, but at length it became fixed, and then came on occasionally heat, redness, and external inflammation, as if suppuration would occur; but after remaining so a few days, it disappeared, as if the system was not quite prepared for such a termination. And even now, occasionally, those same symptoms recur, but do not advance to suppuration. Her health is at present good, and she suffers little from the tumor.

A second case of curious character lately occurred. This patient, Mrs. B., had inguinal omental hernia for numbers of years, and as the functions of the system were not deranged by it, and its firm adhesions prevented increase, she rarely complained of it; but about one year past, after little unusual labor, she was attacked during night with excessive pain of the part, which continued without abatement for many hours, and was followed by the usual severe symptoms of strangulated intestinal hernia; but as the tumor offered no increased size, it gave perplexity as to the treatment. While in this state of suspense, after powerful cathartic medicine had been given, the tumor suddenly became inflamed externally and soft; and in that state it was lanced. At the first incision, pus and small and thready shreds and masses, like omentum, came away, and

with some slight relief; still, cathartics did not operate, but enemas brought off the contents of the intestines below the strangulated portion. After an attack of severe distress, which was considered a precursor of mortification, for the countenance and pulse and universal appearance threatened this result, there was considerable discharge through the open sore, and with it contents of the bowels, and then she became better in pulse and other respects. Now, there appeared as an only alternative, artificial opening in the abdomen, with all its revolting inconveniences, and although life was to be spared, yet to a condition worse perhaps than death. Mild laxatives were now given at regulated intervals, and enemas occasionally. Oil, after a time, was seen with the discharges from the opening, and after close observation, a little was detected in the natural evacuations; it was still persevered in, and in the course of time, it diminished in quantity from the groin, and the alvine evacuations became more natural. For three or four weeks there would be discharge sometimes of undigested parts of nutriment, but finally it ceased, and all the intestinal course seemed to be restored to its former and natural functions. The tumor had disappeared and the patient was restored to health.

I considered that the inflammation of the omentum had extended to a portion of the intestine contiguous to it, that adhesions had formed, and finally the ulceration had destroyed perhaps a half of the circumference of the intestine, and that as healing came on the open sore diminished, and left intestinal space sufficient for nature's purposes. Nevertheless, I now conjecture from the occasional pain, when there is any imprudence in her food, that the part is perhaps diminished in its circumference, or perhaps its morbid adhesions still continue. Time, I trust, will allow opportunity for more examination of this case.

The last case occurred three weeks since, and was ushered in by difficulty of breathing, cough, great restlessness at night; and as this had been gradual in its approach, and in a man accustomed to bear pain without complaint. I could not satisfactorily learn when it began; but for many years he could not run or walk fast without such inconvenience as would make him stop for want of breath. In course of time he died, and died in great distress. A tumor appeared above the sternum that pressed upon the trachea, and death came on as if from suffocation. On examination, the tumor proved to be aneurism of the aorta at the arch, and was entire; but its inner sur-

face was so coated with ossification, and these portions so adjusted to each other, that there was no sign of rupture or even marks of inflammation to lead on to ulceration. But its whole cavity was entire and so unyielding, that the party around it, when it was distended with blood, became compressed, and respiration and its consequent functions ceased soon in death. The aorta has been preserved and will on another occasion be presented.

Phthisis not curable by Chlorine.

It is not the smallest obstacle to the attainment of exact knowledge of the improvements in medicine, that while we are almost certain to hear of the successful employment of new remedies, their failures are very likely to escape our observation. The practitioner who has once tried a remedy and found it succeed is naturally sanguine as to its effects in future cases, and rather disposed to view any subsequent instances of failure, as evidence of the imperfect analogy between the cases themselves, than to admit having overrated the importance of his treatment. From this cause, as well as a natural reluctance to report unsuccessful cases, it almost necessarily happens that the efficacy of a new mode of treating disease appears before the public in an exaggerated and deceptive form. The inconvenience and uncertainty arising from this source are peculiarly felt by the practitioner, when the article in question is one of great activity, or when a fair trial of its efficacy would require a considerable expenditure of time. In this case, to know the precise state of the existing evidence in regard to such a substance, may be a point of the highest importance, and without such knowledge, the conscientious practitioner will hardly feel justified in exposing his patient to the pain, risk, and loss of time attendant on what may prove, after all, a useless experiment. It is in this view of the subject that we shall hold it our duty to keep our readers apprised of such cases as may justly diminish their confidence in the use of particular remedies, as well as of those which go to confirm their character. We have now before us some of the former class, in which the inhalation of chlorine gas was resorted to, for the cure of phthisis. These are contained in a paper in the

Archives Generales de Médicine, written by M. Toulmouche. The paper is divided into two parts, in one of which is pointed out the inefficacy of chlorine in phthisis, in the other is shown its utility in chronic pulmonary catarrh. The first contains the particulars of seven cases, all of which were characteristic of confirmed pulmonary disease, and in all which the patients died, having been submitted to the chlorine treatment for a longer or shorter period. In the first of these, the chlorine was commenced about two years after the premonitory symptoms of the disease, and continued for fifty days ; in the second, at the termination of a few months, and continued for sixty days ; in the third, at the termination of three months, and employed for fifteen days ; in the fourth, five months, and continued for forty days ; in the fifth, at the end of four months, and used for four days ; in the sixth, after the tenth day, and employed for fifteen days ; finally, in the seventh, commenced a few days after a relapse, and continued for fourteen days. With the same unsuccess the author experimented on nearly sixty other phthisical patients in private practice, and on twenty in a penitentiary hospital. All these, it is to be observed, he considered as cases of confirmed phthisis. In three other cases, more or less resembling this disease, the inhalation was attended with good effects and followed by the relief of the symptoms. Several others of this class are stated to have been equally benefited ; but the number of these, or their peculiar symptoms, he has not thought it necessary to record.

Belladonna in Strangulated Hernia.

Attention seems lately to have been directed to the singular fact, that many of the more powerful medical agents are capable of exerting their specific influence over particular parts, by being applied to the surface in the neighborhood of these parts. This property seems distinct from that by which substances of this sort are absorbed into the system from the skin, to exert their peculiar influence on the brain itself. In the class of cases now under consideration the general nervous system is scarce at all affected. It would seem as if an effect were produced by the contact on the cutaneous nerves, and propagated from them to the nervous fibrils pervading the

neighboring tissues. The subject is obscure, and facts are still needed to enable us to form a probable or plausible theory. The most interesting of these phenomena, however, which have yet been brought before the public, have followed the external application of belladonna. The effect of this substance in relaxing the muscular structure of the iris, has been long known to, and availed of by surgeons; but its successful application to other muscular structures, is of recent date. The state of the parts concerned in hernia, naturally suggested the idea of employing it in that disease; and if we may judge from the number of successful cases which have appeared in the periodicals, it promises to be a most important agent in the treatment of that dangerous affection. We learn from a German Journal through the medium of the London Lancet, that Dr Frankel has treated six cases of strangulated hernia, successfully, by repeatedly rubbing the tumor with a pommade containing belladonna.

The first case was that of a female peasant, aged fortytwo years, who had been thrown down and injured by the pole of a cart. She was brought to the hospital in a state of extreme feebleness, with nausea and vomiting. On examination, a strangulated hernia was discovered on the right side; she was immediately bled, leeches were applied to the part, and cold lotions placed over the tumor. In spite of these remedies, the abdominal pain increased, the constipation was obstinate, and the vomiting became stercoraceous; an operation was proposed, but rejected by the patient. Dr Frankel now administered at intervals a few drops of laurel water, and rubbed the tumor, every hour, with an ointment containing a large quantity of the extract of belladonna. This application was soon attended with happy results. The accidents were alleviated, the hernial tumor became soft and small, the vomiting ceased, and the hernia was rapidly reduced.

In another case the symptoms of strangulation had lasted for eight days, and an operation was pronounced indispensable, when reduction was obtained by the belladonna. This was a female whose hernia descended only during pregnancy, in consequence of which she did not wear a bandage. The tumor reappeared after a violent and sudden effort, and soon became strangulated; the bowels were now obstinately confined, there was vomiting of fecal matter, and, in short, all the symptoms which usually accompany strangulated hernia manifested themselves. The surgeon in attendance proposed an operation as

urgent, but, as in the former case, the patient was unwilling to submit, and the extract of belladonna in consequence was employed after every other means had been in vain tried during eight days. The remedy was here attended with success, and the tumor soon reduced.

The recent application of belladonna to another important muscular structure, though its results can hardly be considered decisive, offers an experiment well worth repeating. We allude to the attempt to facilitate labor by its employment in some cases, where delay seemed to depend on the rigidity of the uterine fibre. Should the article be found to possess the property of relaxing the opposing parts under these circumstances, it will furnish a most valuable addition to the resources of the obstetrical practitioner.

COLLECTANEA.

Uterine Hemorrhage checked by applying the child to the breast.—M. R. æt. 30, delivered of a boy 23d June, 1833: sixth child. Presentation natural: labor quick. Has been always subject to hemorrhage after labor, from inertia uteri. Was called to deliver the placenta. The uterus was hard, but there had been profuse flooding. The placenta required a gradual but firm extracting force to bring it away: some large coagula followed. The uterus became somewhat larger, but was still hard. On pressing the fundus another large coagulum escaped. She was very faint, and vomited some pulv. sec. cornuti which I had given her. The uterus after this remained hard and small, but the most imperceptible increase of its size was followed by a discharge of blood. Water by itself, and then vinegar and water were repeatedly thrown up the vagina; and, as the faintness increased, brandy and ammonia were given, as occasion required. After a while, when scarcely any discharge appeared, even upon coughing or straining to vomit, a bandage, with a large compress upon the fundus, was applied round the abdomen. As, however, the discharge returned, I ordered the child to be applied to the breast, the stimulus of which immediately produced full contraction of the uterus. On changing her clothes and putting her to bed, she wandered considerably, and there was strabismus. A drachm of tinct. hyosciami, in

mist. camphoræ, brought on refreshing sleep; and she awoke some hours after, much better, but very weak. She suffered for some days from severe headache, and nearly total loss of vision, but eventually recovered.

M. L. æt. 34, delivered of a boy Oct. 21, 1833:— third child. Presentation and labor natural. Of very unhealthy appearance. Acne of the nose and lips. Profuse hemorrhage after labor, to which she has been also subject in her previous lyings-in. Ergot of rye, cold externally applied, and cold injections into the vagina, had no permanent effect. Another woman's child was put to her breast, but still the uterus refused to contract, but when her own was dressed and applied, permanent contraction instantly followed.

This is the only case where I have not found immediate and permanent contraction of the uterus follow the application of the child; but I must also observe, that it is the only case where the patient's own child was not applied. I well remember that she allowed it to be placed by her side, without making the slightest attempt to assist in directing its mouth to the nipple, and scarcely even noticed it; but the instant her own was brought, her eye brightened up, the mother's feelings were excited, and she instantly roused herself to receive it in her arms and caress it. The powers of instinct produced an involuntary stimulus to the nervous system, and called into existence that beautiful chain of sympathetic actions which is evidently intended by nature as a protection against many of those accidental causes of danger to life during the important process of parturition.

When I first began to use this plan of treatment in cases of inertia uteri after delivery, I was frequently startled by finding a sudden gush of blood, accompanied by a forcible discharge of coagula, follow almost instantly the application of the child; but soon satisfied myself, that so far from being a return of the flooding, it was merely the result of the uterus contracting firmly and expelling its contents.

It is a common saying among nurses, that 'the child brings after-pains;' that is, when the child is first applied to the breast on the second or third day, as was formerly the custom, it was frequently followed by pretty smart after-pains, which evidently resulted from the uterus being excited to contract and expel any coagula of blood which might be lodging in its cavity or sinuses. Hence, besides its beneficial effects in preventing any danger from hemorrhage, the early application of the child to the breast is a valuable means of preventing much of that uterine pain and irritation which is apt to result from the presence of coagula, &c. in the womb, after labor.

Since writing the above, my attention has been drawn to some interesting observations in the Dublin Journal, No. 11, by Dr Patterson, on the effects of Mammary Irritation in the Cure of Amenorrhœa, &c. A patient, in whom the catamenia had been wholly suppressed for two years and a half, and who had been successfully treated for an attack of fever, had been ordered a sinapism to the right side of the chest, on account of pains of an hysterical character which had presented themselves. The sinapism had been inadvertently made so large as to cover a considerable portion of the breast; much irritation, with hardness, pain, and swelling of the gland, was produced, which in the course of about 36 hours was followed by a copious discharge of the catamenia. Reasoning from the sympathetic action which exists between the breast and uterus, Dr Patterson tried this plan of mammary irritation in another case of amenorrhœa, and with a similar result: the catamenia appeared in 24 hours from the application of the sinapism, with complete restoration of the health. These facts are not only interesting, but valuable in a practical point of view; they also confirm, in a striking manner, the observations which I have submitted to you, and prove that we possess, by means of stimulus applied to the breast, a powerful, and I might almost say certain, means of acting upon the uterus, where other methods have been unsuccessful. — *Lond. Med. Gaz.*

Medical Education at the South. — We have now before us a catalogue of the trustees, faculty and students of the Medical college of the state of South Carolina, with some account of the rise and progress of the institution. We observe by it that the first course of lectures in this institution terminated on the 7th of March last. The number of students in attendance amounted to one hundred and four. We also see that at the commencement of the college of Charleston, thirtynine of these gentlemen received the honor of a medical degree. The means and facilities for instruction possessed by this school are mentioned as ample. Among them is an infirmary, in which the students have an opportunity of visiting the sick daily and even hourly, and of watching the progress of the cases, besides attending the clinical lectures at stated periods.

The existing regulations require, that each candidate for the diploma, should have attained the age of twentyone years, — studied three with some respectable practitioner, — attended two full courses of lectures, one of which must be in the institution, and one course of demonstrations, in a dissecting room, — be of good moral character,— and offer an acceptable thesis on some medical subject, in the Greek, Latin, or any of the modern

languages, for the best in each of which, a suitable testimonial will be awarded.

Carrageen, or Irish Moss. — The great use now made of this valuable marine plant, as affording a nutritious article of diet for infants, and for invalids generally, and as applicable to many elegant and salutary preparations for the table, such as jellies, blancmange, &c, renders it of considerable importance in domestic economy. The Bunker Hill Aurora states that large quantities of the plant may be collected on the shores near Lynn, which the editor thinks is the same as the imported article ; and which it is said, has been sold in the shops as genuine.

We have long entertained a like opinion with regard to the identity of the indigenous and foreign article. It is found in abundance on the southeast coast of this Island ; probably our whole shore produces it. Some weeks since, impressed with this opinion, we gathered a considerable quantity, and subjected it to the same process usually applied to the Carrageen, and with a satisfactory result. The gelatinous product was evidently as ample, and to all appearance quite as valuable as that of the Irish moss. Whether its medicinal properties be equal to those of the latter, having had no thorough opportunity to ascertain, we do not pretend to judge. The plant itself, as it is found here, washed up from the sea, resembles the imported moss very closely, with the exception that it is evidently of more luxuriant growth, and rather less fibrous at the superior terminations. These are the only perceptible differences in the external characteristics of the respective substances. If, upon further investigation, it shall be demonstrated that this hitherto unnoticed species of seaweed, may be readily converted into a restorative beverage for the sick, or a grateful viand for the whole, the worth of the treasure lying at our very doors, though attainable without money and without price, will doubtless be appreciated. — *Nantucket Inquirer.*

Progress of Medical Intelligence. — It is curious enough how slowly the discoveries announced in Meckel's or Tiedemann's Journal find their way into English books. The average rate of passage of a fact from Germany to England is about two years, and many seem to have lost their way altogether, for they have not yet arrived. In this respect, with all due deference to our countrymen be it spoken, the Americans have long been our superiors, and are much more speedily and more extensively supplied with German intelligence than ourselves. My late excellent and learned friend, Dr Duncan, did much to abate this evil, and it must be confessed, that

our literature is chiefly indebted to the journals of Scotland, medical and philosophical, for a knowledge of the progress of science in Germany. Lately, but only lately, our English brethren have followed the example, so that, ere long, we may hope to see this department of our literature cultivated as it deserves.

Dublin Journal.

Cholera. — In New York on Friday 22d, the number of cases was 28, of deaths 12. For the 24 hours ending on Tuesday 26th at noon, the deaths were 21. — In Montreal there were 785 deaths by cholera for the five weeks ending August 15th. On the 18th, the deaths were 5, on the 19th, 7, 20th, 3. — In Quebec on the 15th, the number of victims for the season had amounted to 1169. On the 16th the number was 4, on the 17th, 11, on the 18th, 13.—Our own city continues to enjoy an exemption from the disease.

HARVARD UNIVERSITY.

Medical Graduates in the year 1834.

February 19th.

Jonathan Wheeler Bemis, A. B. — On the Eye.
James Brander Forsyth. — On the Ear.
Almond Gushee. — Hepatitis.
James Jackson, Jr. A. M. — Emphysema.
Horace Kimball. — On the Teeth.
Joseph Moriarty, A. B. — Hernia.
Edward Thomas Tremaine. — On the Liver.
William Randall Wells. — On Digestion.
Charles Frederick Winslow. — On the Tongue.
William Young, A. B. — On Indigestion.

August 27th.

Amos Bigelow Bancroft, A. M. — Puerperal Fever.
George Amory Bethune, A. M. — Conjunctivitis Puro-Mucosa.
Andrew Denny, A. B. — Consumption.
Nathaniel Augustus Fisher, A. B. — Insanity.
Francis Henry Gray, A. B. — Exploration of the Lungs.
Henry Babcock Hubbard. — Spontaneous Generation.
Herman Brimmer Inches. — A. M. — Morbid Irritation.
Nathaniel Bradstreet Shurtleff, A. M. — Rosalia.
Henry Tuck. — Change of Climate.
Abner Bennett Wheeler, A. M. — Dyspepsia.
Samuel Wigglesworth, A. M. — Dropsy.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

Case of Paruria Inops.

[By M. H. De Leon, M. D., of Columbia, S. C.]

In all medical periodicals we see a propensity to the publication of such cases as are rare and curious. It is not because the following case may come under both of those epithets that we extract it, but because we are glad to present the favorable termination of a disease, which, so far as it has been observed, has uniformly proved fatal; and also because it presents an exception to the observations of Sir Henry Halford and others, that it always has occurred in 'fat, corpulent men of fifty or sixty years of age.' Another exception to this observation, with remarks upon the disease may be found noticed by Dr Hayward in the Amer. Journ. Med. Sciences, V. 89.

Every means of impressing upon the minds of our profession that there is much in our art yet to be learned, that we are not to rest satisfied with the past or present authority of even our greatest masters, should be sedulously employed.

Here is another instance among several others recently made known to us, of a disease which has been regarded as hopeless, and little, if at all under the control of medicine, terminating favorably. Let us not despair of this disease, or of epilepsy, or cholera, or anything else, since small-pox, scrofula and other *opprobria medicinæ* have been shorn of many of their terrors.

It is only necessary to say of the early history of the case, that the patient was a woman about fifty years of age — that subsequent to her last pregnancy, three years before, she had been subject to profuse uterine hemorrhage, which for a long time defied every resource of art to control it. This was found to be connected with extensive disease of the uterus and its appendages.

'After success had attended our efforts in overcoming the hemorrhage, my patient daily improved, under the free use of light and nourishing materials, insomuch, that after a very short interval, she was enabled to attend to her domestic duties, with only an occasional interruption, from the effects of a then chronic disease. From this period, my visits were only incidental: — on one of these occasions my patient said to me: — "Doctor, 'tis very strange that I have passed no water for many days, nor have I felt the least inclination or inconvenience from not doing so. From these causes I thought it unnecessary to mention the circumstance, expecting it daily to return." To this I responded by asking all the necessary questions, going to show retention of urine; not dreaming of suppression at this period. After some reflection, and reverting back to the time of the profuse discharge of blood, causing incalculable waste to the general mass of fluids, I readily referred this diminished secretion of the kidneys to this reasonable conjecture, based upon the immutable laws of the organization.

'I renewed my interrogatories upon my evening visit, as my prescription had not availed; the replies of my patient were so vague and unsatisfactory, as to the point at issue, that I urged upon her the propriety of a manual examination, to clear up all doubts and uncertainties, as to the actual state of the bladder. Being in the entire confidence of the lady and her family, my wishes were forthwith complied with. My examination resulted in the developement of the real nature of the

affection, which I am free to confess caused me much painful anxiety, in consequence of the intense interest I felt for the patient, and her family. At this critical juncture, the lady was much debilitated from her previous disease; but her health, strength, and appearance, were all daily improving; the flooding had ceased for some time, and a slight mucous discharge, had supervened upon the final cessation of her catamenia. The uterus was somewhat enlarged, but free from pain, or other inconvenience. The bladder was flaccid; no tension above the pubis, nor other ailment in that region; the only complaint uttered was a sensation of weariness in the loins, immediately in the neighborhood of the kidneys. I cautiously introduced the catheter, and if I was before astonished, I was now confounded; upon withdrawing the instrument not one drop of fluid followed it, which was conclusive evidence, that the bladder was empty; how long it had been so, I could not anticipate, or could my patient determine, having in the first instance, regarded the matter as of little moment. Her anxiety was now painfully awakened, owing to her supersensitiveness, conjoined with great intelligence; this constrained me to treat the affair somewhat lightly to her, to calm her fears; but propriety and candor demanded, that her family should be apprised of her danger; which from my reading, and preconceived notions of the disease, I deemed to be at its acme; having treated one case before, which terminated unfavorably, despite of youth, constitution, and the advantage of the best regulated treatment, directed by the skill, and experience of the gentleman associated with me, in the management of that case, I had but little foundation to build hope upon, in the case then under my observation and treatment.

'Day followed day, under the catalogue of remedies suggested by the best authorities, giving to each a fair trial before they were abandoned. No melioration followed their exhibition; the symptoms remained in statu quo; I occasionally introduced the catheter, to certify me fully, that the bladder contained no fluid, and that the full action of the kidneys was not yet restored. The internal and external medication, was modified in every possible manner, and pursued with great zeal and perseverance, with no better success. The third week of my attendance for total suppression was now ended; and not finding any plan of treatment I could propose, likely to avail, I urged upon the lady and her friends, the propriety of allowing me a consultation. The lady herself, from the

little pain, or inconvenience experienced, was scarcely sensible of her actual danger; but her family were in full possession of all my fears, and my doubts, as to the favorable issue of the case.

'The consultation was denied me, on the ground of inflicting an unnecessary pang upon her feelings, by causing her great alarm, as to her actual danger, with which she was unacquainted. The additional responsibility, which now rested upon me, painfully increased my anxiety; I therefore by a little address, succeeded in obtaining my patient's permission, to exhibit her case to a medical friend of high standing in his profession; foregoing the formality of a consultation; who would look in with me *en passant*; stating to her, that the novelty of the case, made it highly interesting to professional men.

'This gentleman visited with me, three or four times during the same week. At his last visit, I urged him, with the consent of the patient, to introduce the catheter, which he complied with; not a single drop of fluid followed its passage outward. After much reflection and consultation, we fully agreed, that the case would prove fatal very soon, although no untoward symptom was at this moment present, save the entire cessation of secretion by the kidneys. Her brain was perfectly calm; insomuch, that being a widow, with a handsome estate, and grown up children, it became necessary that she should make her will; which she executed with considerable composure, so far as could be discerned. The only change observable as to the effects of the disease upon the brain, was now, a restless and impatient manner, with constant inclination to have her mind employed, and her body in motion. I continued my attendance daily, diligently applying every aid within my reach, till the commencement of the *fifth* week, when, on one of my morning visits, the patient informed me, that during the night, she felt more than an ordinary uneasiness in the back, and about the bladder, with frequent inclination to urinate, which caused her to make the effort, which ultimately proved completely successful! The discharge was exhibited to me, which had a strong urinous smell, and possessed all the chemical properties of urine. The quantity evacuated did not exceed three ounces. The stimulating frictions to the spine, were continued, with internal medication, and in twentyfour hours more, the secretion was fully restored in quality and quantity, and was not again interrupted; the bladder performing its office healthfully, and

every function connected with the urinary apparatus, duly exercising its share in the economy, as formerly.

'The case detailed is remarkable in a pathological point of view; and its successful termination, after so long a period of entire and complete suppression, from organs which are supposed to eliminate from the blood, to be discharged from the system as unfit for its healthful purposes, a secretion which when returned to the circulating mass, has never failed to prove hurtful to animal life. This result has always obtained in the cases detailed by Sir Henry Halford, and other European writers, upon the disease in question, going to prove conclusively its particular influence upon the brain; their patients in almost every instance dying comatose apopletic, &c.

'It may be expected of me, to detail the practice pursued in the case. To sum it up in a few words, I would remark, that *every remedy* suggested by writers on the disease had a full trial before they were laid aside. I am not therefore prepared to admit the value of one over another. Cupping over the spine, repeatedly instituted, and followed up by the most powerful rubefaciants, by friction, claimed my greatest regard.'

Baltimore Med. & Surg. Journ.

Clinical Lecture on Amputations.

By Sir Charles Bell.

'The first reflection which I think must have arisen in your own minds, is the very remarkable difference in the success of the operation of amputation, according to the previous condition of the sufferer, — if the patient has been reduced by long illness, you see him rally in a surprising manner; but the event is very different when a man in high health is overtaken with a severe accident that requires amputation. You have, I am afraid, seen that the operation performed on young persons in florid health have not been successful in that measure that you have seen in poor, languid, exhausted, hectic creatures. Is it, then, that you operate in a condition of the patient's mind little prepared for so severe a shock? Are we to seek the cause of this in the constitution of the bodily frame, or in the condition of the mind?

'Now, there may be a great deal, in common cases, in the preparation of the mind; but I have seen a man come into this hospital, petitioning the surgeon to amputate, on account of distortion, and die. I remember very well a little conceited tailor coming in here to have his leg amputated, because it was crooked: his mind, we must presume, then, was prepared. I was against the operation — that I must say for myself; but the operation was performed, and the patient died: and such occurrences make me suspect that we are to seek for the cause more in the state of the constitution than in the condition of the mind; though I am ready to allow that there must be a great deal favorable in the calm and resigned condition of the mind. For example, when you take the practice of our navy surgeons, and when they are speaking of the time of amputations, — these are circumstances to be taken into consideration. Brave men, in going into action, are prepared for wounds. In matter of fact, when wounded, they descend to be operated upon, while yet the animation of the fight prevails; and in the work of Mr Copland Hutchinson you will find that these men have the resolution and presence of mind to tie their handkerchief or garter around the limb, and with a shattered leg descend from the rigging, and hop down to the cockpit! These are men who, under operation, will join in the shout, when they hear their comrades on deck cheering after a successful broadside: and we must not lose sight of the fact that many of them desire to lose a limb, because it is a provision for life. What a different prospect is before the poor lad on whom it was necessary to operate this morning! It is lamentable to think, that, during the operation, he was whispering to his nurse, "Well, I must have a wooden leg, and go a begging." That is a very different condition of mind, and a very different condition of body, too, you say; and, therefore, I fear that we may be apt to be misled by the authority of these naval reporters, inasmuch as they are operating upon young men in health, but in a condition of mind not merely prepared, but some of them positively wishing for the operation.

'As to the time of operating — what is the meaning of early amputation? If you take again our authorities, our navy and army surgeons, you find a very great difference, — some of them speaking of half an hour as an early period, and some of them speaking of six or seven hours as the early period.

Now it appears to me that the early period is when the operation is performed very early; that is, when the man is still animated, as it were, with the passion and excitement of the actual engagement, — when the knife follows the injury so immediately, that there is no second shock.

'If this be the first period for amputation, it is pretty certain that, in domestic and hospital practice, we can never profit by it. You are not present: you do not stand with your consultant and assistant, and all appliances, ready to operate; and if you were, the alarm of the sufferers, and the outcry of the friends, preclude this early operation.

'There is another point that you must consider, in looking critically into authors on this question. You find some, especially the French authors, eloquent on the subject. Some of our army surgeons have taken up the same view; and in my brother's works you find a very eloquent and animated description of it. I allude to the weakness that arises from the commotion, the tremor, the nervous lowness, the sickness, and the sensation of death, which comes upon a man severely wounded. This undoubtedly does come upon a man when wounded in the belly; but on many occasions, when I have conversed with the wounded, I have not found any account of this tremor or nervous weakness, from commotion; and in the pamphlet in my hand, which is the last record we have of the navy practice, by Mr Hutchinson, (and which, consisting but only of a few pages, is yet invaluable,) I find the condition alluded to in one instance only. That there is such a condition, be assured, although it is very possible that their number may be multiplied by authors, giving an air of originality to what they have learned at second hand.

'In order to make the different testimonies correspond, I fancy you will have to take into consideration the loss of blood in many instances. There is a case which you have all seen repeatedly, — which we unfortunately see very often in the course of a season; and I have from time to time, in former days, taken it as an illustration of what I meant; — I refer to the condition of a man who has attempted suicide, by cutting his throat. When the patient is brought to the hospital, there is depression of mind and loss of blood; and the depression of mind and the loss of blood reduce the man to the very condition, so far as I can understand it, that these authors have described to be the effect of severe gun-shot wounds; so that I cannot help suspecting that when the picture is drawn of the

nervous influence upon a man who is shot, they have not sufficiently distinguished the cases where there is loss of blood.

'We say currently, and with perfect correctness, that if an artery be opened with a lancet, it bleeds the person to death; if it be cut with a bit of glass, it bleeds the person to death; but if the limb be torn off, the artery does not bleed; and if the artery be cut by a ball, it does not bleed. Now, that is perfectly correct; there is no hesitation about the fact; yet I have a notion that when a round shot comes through the sides of a ship, for example, and tears off the limb near the groin,—that this is not such an injury to the artery as to cause the immediate stopping of blood; that, in fact, before the man is brought down to the cockpit under the observation of the surgeon, he has lost an enormous quantity of blood; and that the great artery does not bleed in some measure, because of the loss of that blood; then the condition of the patient is accounted for: there is the fear of death, — there is the shock to the whole nervous system, — and there is loss of blood; and these three combined are enough to explain the lowness, tremor, and condition almost of approaching death.

'With regard to the effect, then, of early or delayed amputation, I have had this pamphlet put into my hand by my excellent friend. I have not had time to read it again; but I have just lighted upon this paragraph, and it brings me to reflect on things long since gone by. It is a list of amputations performed on board His Majesty's ship Leander. The remarks are these:—

"Amputation of both thighs, very high up: died in a few hours.

"Amputation of both thighs, very high up: ditto ditto.

"Amputation of hip-joint: died shortly after.

"Amputation of left thigh: convalescent.

"Ditto - ditto - ditto.

"Ditto - ditto - ditto.

"Amputation of the right thigh: convalescent.

"Ditto - died of phthisis, and the stump cicatrised.

"Amputation of the left thigh: fever twenty days after amputation," &c, &c.

'Now this brings us to reflect on a most important circumstance, — a circumstance that is necessary to explain my conduct this very morning, with reference to the amputation in that young man. In amputation there is a shock to the sys-

tem, to the powers of life, by the lopping off of a portion of the body, and there seems to be a shock proportionate to the mass that is severed; and there must also be a shock proportionate to the extent of the wound. You may naturally enough say, is there a shock to the system from amputation, and none from the limb torn off by cannon-shot? The question would be very natural; but my meaning in using nearly the same words is different. The shock to the powers of life which results from too severe an operation, is very different from that attributed to the effect of wounds. No doubt if a thoughtless surgeon should keep his patient too long upon the table, poking for a stone in the bladder, or working on a disease of the rectum, the patient becomes sick, and vomits, falls low, and never rallies. But the impression I now speak of is of a different kind, and occurs at a different period: he goes to bed in comfort, and promises to do well, but dies on the fifth or sixth day, — sinking you know not how. The extent of the wound must be very great in a hip-joint operation. The extent of the wound is very great when both thighs are taken off, and the shock is greater when the thigh is removed nearer the groin than just above the knee; and although we may lose sight of this great principle when we see one case at a time, yet it is impossible to look upon the wards of a hospital after a naval engagement, in which a great many men have been wounded, and have suffered amputation, as I have seen in Haslar hospital, or after an engagement on land, as I had abundance of opportunity of witnessing in the hospitals of Brussels after Waterloo, without perceiving in these cases this great question decided, — that the deaths are in proportion to the mass cut off, and to the surface of the wound exposed. This corresponds exactly with our practice here at home — I may say with your own knowledge.

The sole object I have in these observations is just to carry your minds back, to bring you to reflect upon these cases, and make them the elements of your future reasoning. Now you have seen a man with his limb shattered, in whom amputation of the thigh has been performed; and you have seen that after a fair promise of success he dies. You have repeatedly witnessed this occurrence. Well, then, here comes in this young man, on whom I operated this morning, a healthy, robust, country lad. A heavy wagon has gone over his foot, crushed the tarsus, crushed the ankle-joint, and fractured all the bones of the foot. At first I thought of making a flap

from the sole of his foot, and taking away the shattered bones, but upon putting the finger into the wound, it is found that the os calcis is fractured, and that the ankle-joint is torn. You see by a man now lying in Clayton's ward what is the effect of attempting to save a limb where the ankle-joint is at all open; that man must suffer amputation after all. The attempt of saving the heel, to rest upon, in this lad's case, would have been followed by suppuration in the ankle-joint and a tedious caries of the bones. It was necessary, then, to take off the foot; and the question came to be, shall we perform the operation just below the knee, or low down? You see that the matter stands thus: when you have got a young man in a certain condition of life, who is to lose his foot, you perform the amputation with a flap above the ankle-joint; and he may have an artificial foot so adjusted that he retains the motion of the knee-joint. A footman, a great favorite of his master, who was very desirous to keep him in his service, had an accident of this description. In that case I performed the flap operation above the ankle-joint; he got a case, into which he put his limb; he had the motion of the joint, and could walk decently into the parlor, and stand at the sideboard. He thus retained his place, which he could not have done had he rested on the knee, and had a stump sticking out behind.

But although this lad be healthy and be young, it was not for that reason that I amputated low down. There is a great brawny calf of a leg; and if I had amputated through the mass of muscle, I conceive that the danger to life would have been much greater than in amputating a little above the ankle. You remember I stated to you that in some of these cases I preferred completing the amputation which the accident had in part performed, extending the incision, and dividing the bones, and thus avoiding the second shock altogether; for I am sure that in some cases it is a good practice. On reflection, I feel satisfied that of the many amputations I performed at Brussels on shattered limbs, more would have survived if I had opened the great abscesses in the leg, cut across the remaining soft parts, and cut off the spiculæ of bone. In those cases it appears to me that the profession has been too anxious for a clean wound. Here I could not do that, but, acting on the same principle, I made the operation as low down as I could, taking care to save muscle to cover the extremity of the bone. That is the reason why I performed this amputation as you saw; and I hope it may turn out bet-

ter than those operations that we have had performed, on account of severe accidents, higher up, where the great mass of the limb was cut through. At present there is no indication by symptoms that the constitution has felt the injury.

With regard, then, to amputation generally, there is one rule which answers for them all, and which is so simple, so obvious, that you would wonder that it had ever been omitted in performing an operation. It is simply to save integument to cover the muscle, and to save muscle to cover the bone, and to keep the periosteum hanging over the bone, and never to scrape it or expose it. If these three things are done, it requires ingenuity to make a bad amputation. If the integument freely cover the muscle, and the bone be sunk in the muscle, the amputation is well performed. Performing the operation on the thigh is the simplest operation of all to the surgeon, though the most severe to the patient; and it ought to be so done, that when you have cut across the bone, that is the last view you should have of it: you should never see it again; but if you see that the bone is sticking out, that is bad; you should, and you must so manage it, that when you have made a section of the bone, you say good bye to it; you never see its face again; it is sunk among the muscles.

'Now how is this to be done? By the simplest mode possible. First, as to the external incision. If the incision go round the thigh, it may be a good amputation; but it will not make a very neat stump. You will find that when you bring the integuments together, they are puckered; they are irregular: that is a matter of no great consequence; but it is easy to avoid it. If you take the long amputating-knife, and, instead of going round at once, incline it with a little semi-circular sweep (first on the one side, and then, without raising the knife, on the other), then you have two flaps, and you have made an incision that will come nicely together over the face of the stump. Do not separate the integument from the fascia, nor the muscle; that is quite wrong; and it is never done unless there has been a great deal of previous inflammation and hardening of the parts, in which case you are obliged to fold up the skin. You are never to separate the cellular texture which is under the skin from the muscles by dissection: all that your assistant does is to pull up the skin. You have now the integument retracted, about an inch above the line of your first incision, and here you are to put down your knife again. You are next to make the circular incision through

the muscle down to the bone, and round it. An attempt has been made — and I am sorry to say it has the support of no mean name — to make the incision at three times: first an incision through the integuments, then through the superficial muscles, and then through the deep muscles, — the superficial being cut further down, and the deep-seated further up. Now what has the surgeon done? He has contrived to make an irregular surface, in which both arteries and nerves may be partially divided — that is, cut above where they are divided. Go through the muscles directly down to the bone. All that is required is, to allow the patient to draw up his leg, which he will do naturally, if the assistant dresser who holds the leg will let him; and as he draws up his leg, the integuments and the muscles are drawn from the bone, and the bone projects to the utmost extent. Assist this a little with the split cloth, cutting the fibres attached to the bone as it protrudes. You now make your saw move horizontally; and one effect of this is, you do not break it, which you are very apt to do by the unsteadiness of the assistant who is supporting it in the horizontal posture. The moment you have cut across the bone, bring down the limb to the horizontal posture, or nearly so, and then you find the muscle lapping over the bone, and the integuments a little projecting from the muscle. That I call a good amputation; every essential circumstance is secured.

'Now you have seen another mode of operating adroitly performed, — and by and by I trust we shall be able to say, successfully performed, — which is the flap operation; you have seen this done by both my colleagues in one day. You grasp the mass of muscles and integuments upon one side of the thigh bone, pass the long double-edged knife close to the bone; and having made this ugly stab quite through the thigh, the knife is carried downwards and outwards (that is, in a direction from the centre); and having thus made a flap of muscle and integument, the soft parts on the other side are grasped, and the knife passed again close to the bone, and a second flap made. The advantage, not a small one, is, that the operation may be done with great rapidity. The essential points are certainly gained here; first, a rapid operation, and, secondly, the muscles and integuments can be freely laid back, and the bone exposed; and you are secure of muscles and integuments enough to cover the bone. I do not see any further advantage in it, however, unless it be this (and I am

willing to allow what I do not comprehend), it really does appear that there is less pain. We are jealous here, as it were, of our own observation; and we must wait and notice whether this be a fact, because it is a great matter, indeed, to the patient: the less pain, the less shock.

['Sir Charles Bell now went into a description of the mode of amputating with the flap low in the leg; afterwards he proceeded —]

'I beg you to recollect that, in order to insure the third point of an operation — the burying the bone in the muscle — you have a difficulty in all amputations of the leg. You sometimes see the surgeon put through the split cloth between the tibia and fibula, and then twisting it over, attempt to draw back the muscles and integuments; but he does not succeed, and a little consideration will show you why: it is because of the inter-osseous ligament; and therefore you put in your knife close upon the edge of the tibia and fibula, and you cut the ligament. As you cut the ligament, you find that the cloth goes up — that the bone projects more and more: without you understand this, you will have the bones projecting in the stump. Further, you so manage it as to cut through the tibia and fibula together. If the tibia be cut through in a high operation on the leg, it belongs to the regular operation, that the surgeon again puts on his saw obliquely, so as to take off the projecting angle of that bone, which else is apt to project, and irritate the thin integument.

[The subject was resumed at the next lecture.]

'On leaving you the last day, you will, I hope, consider that it was natural in me to ask myself, "Have I omitted anything in addressing these gentlemen?" Now I found I had, and a point by much the most important in the operation of amputation. I said that an amputation of the thigh was well performed when the bone was quite buried, and when, on its healing, it looked like the caricature of a fat child's face. For the reverse picture, look to the case of the lad with diseased hip, under my care, who lost his leg some time ago, and who exhibits now the most perfect specimen of the conical stump. There the thigh tapers to a point where the bone projects, covered only with a tender film of vascular integument.

'But it may happen, when all is done well, and the stump is of the most approved form, that the patient has pains in the extremity, and that the stump may be as susceptible to the

variations of the atmosphere as a barometer, and very easily affected by the state of the general health. He may have shooting pains in the stump, darting like a stroke of electricity, and with such violence as to make him faint. He has got rid of one formidable disease, to become subject to a different and a worse malady.

'What is there then in the mode of amputation that has laid the foundation of all that misery? That is the point of which I omitted to speak; but you now anticipate what I have to say. See that the nerves are cut short; for if the nerves are permitted to hang out, and to attach themselves to the cicatrix, your patient is in danger of this formidable occurrence. This is the reason why, when you cut the integuments, you draw them up, and lay the edge of the knife again on the fascia, higher by an inch at least than where you cut the integuments. This we are able to do, by retracting the integuments. Between the skin and the fascia there is a loose cellular texture, and under that the cutaneous nerves run close upon the fascia; so that if you retract the skin properly, and place your knife at the edge of the retracted skin, you divide the cutaneous nerves at least an inch and a half, or more, shorter than the integuments, and the latter completely covers and envelopes their extremities. This is a very essential part of the operation to be attended to, and is too often neglected.

'Then again you sometimes hear the poor patient say, "Is that foot not off yet?" What is the meaning of that question, when the bones are sawn through, and the leg is removed? It is, that when you are taking up the arteries, you touch a divided end of the nerve, and it appears to the patient as though the sensation was in the foot. Take care that this be the last time he shall feel the foot; for if you include the nerve in the ligature of the artery, you lay the foundation for the condition I have described; your ligature hangs upon the end of the nerve, and the nerve expands beyond it, like a button in the loop. By and by you desire to get it away; and that is a difficult and very painful operation — much more difficult than that of amputation, and nearly as painful. As you would avoid that awkwardness, then, be careful, in taking up the vessels, that you see the end of the nerve free from the loop you are about to draw. If you have any hesitation, draw out the nerve; it is the least elastic part of all which you divide in amputation; and if it has suffered inflammation, it is particularly apt to project; which, if it do, fix the tena-

culum in the neurilemma, draw it out, and cut it across with a very sharp scalpel; it is a pang which will prevent much and long suffering.

Aneurism of the Hepatic Artery bursting into the Hepatic Duct.

Communicated By J. B. S. Jackson, M. D.

The publication of the following case is suggested by having lately seen an account of one very similar, given as a cause of jaundice, by Dr Stokes of Dublin in his highly valuable course of lectures on the Theory and Practice of Medicine, (Vide London Med. and Surg. Journ. for April 19, 1834,) and in connection with which he also mentions another that occurred in Paris.

F. L. a stout healthy carpenter, twentytwo years of age, was operated on in the year 1827, by a very eminent surgeon, for aneurism of the left carotid artery. November 23d, of the same year, he was again seen; was then feeble and emaciated, with symptoms of phthisis which developed themselves about four months previous, and gradually progressed till the time of his death; was also affected with complete jaundice, of which he gave the following account — that during sickness he had had every three or four days a dull, heavy pain in epigastrium over the space of about two inches square — occasional remission, but then had unusual languor of body and mind — gave up work — about three weeks before had had a turn more severe than usual, and the next morning he found his skin yellow; from that time the pains had been less severe but more constant, occasionally passing to back round the right side — found no tenderness on pressure, nor fulness about liver. The skin, eyes, and inside of mouth were yellow, the urine deeply colored and the dejections entirely deficient in bile; these last symptoms continued unabated till death, which occurred December 17th. He also suffered more or less from sharp pain in and about the epigastrium, sometimes extending to the right side — this was often very severe but could generally be relieved by leeches, blisters and opiates.

Autopsy. — Extensive tuberculous disease was found in the upper lobe of the right lung, some also in the left; the tubercles themselves, all of which had passed to the second stage,

and the pus contained in two or three small abscesses of the consistence of thick cream, were of a bright yellow color, the tissues generally throughout the body being more or less stained with bile. The liver presented at its transverse fissure a soft, thin, fluctuating tumor of a dark color and appearing somewhat like the right auricle of the heart when distended with blood; it was about the size of a pullet's egg, but appeared to be buried in part among the vessels, and in the substance of the organ — the gall-bladder was enlarged and filled with a fluid which gave it a dark color. The liver was then removed, together with the duodenum and a part of the stomach; pressure on the gall-bladder filled the tumor (fluctuation between the two being quite distinct) and being continued, a dark brownish, grumous bloody fluid escaped from the divided ends of vessels which from their size, relations and texture appeared to be the hepatic artery and its branches; these vessels being laid open throughout, the principal branch was found to communicate freely with the tumor above described, which proved to be an aneurism of this vessel. The sac was filled with soft, black coagula, thin grumous fluid as above described and some lymph — the internal surface was irregular, the aneurism being of the mixed kind. Beyond the sac, the artery went freely into the liver and was apparently healthy; the gall-bladder being laid open, its contents were found perfectly similar to those of the aneurismal sac, except for the lymph, the organ itself was quite healthy, so also were the cystic and common ducts, but, on looking for the hepatic, a remnant of it only was found where it joins the cystic, its edge was ragged, soft and discolored and it evidently opened into the aneurismal sac; on cutting into the substance of the liver, there were found everywhere vessels of great size, filled with precisely the same matter which was contained in the aneurismal sac and gall-bladder — they were smooth on their internal surface like veins, and being laid open, the largest of them measured from one to two inches in circumference — in the left lobe, one of the branches of moderate size was rather suddenly dilated into a sac about the size of an English walnut; these vessels ramified in the liver and had their trunk at the transverse fissure, two very large branches terminating just there; they also accompanied the vena porta some way into the liver, from which it appeared that they were branches of the hepatic duct; moreover, the vena porta, and the hepatic veins, and, as stated above, the branches of the hepatic artery within the liver were

ascertained to be in a perfectly natural condition; unfortunately the case was not fully understood in the early part of the dissection, so that the idea did not occur, of attempting to demonstrate the communication between the main branch of the duct and the aneurismal sac — of this, however, there seemed to be the strongest evidence short of actual proof, and, if no other had been discovered, the opaque, yellow, disorganised appearance of the internal surface of the duct just as it reached the sac would have made it highly probable; the liver itself was rather soft, but in its structure not perceptibly altered. The other organs in the abdomen and thorax were healthy.

Boston, August 25, 1834.

Extraordinary Case of Suicide.

Delgado, a Spaniard, who was confined in the Boston Jail, on a charge of Piracy, terminated his own life by violent means about nine o'clock on the first of the present month. The circumstances and manner of the fatal act were thus related before the inquest, by his comrade and countryman who was confined in the same apartment. Delgado awoke that morning in great distress of mind and partial delirium. He bewailed in loud exclamations his unhappy condition, and declared that he would live no longer. He fastened one of his suspenders about his neck, and endeavored to produce strangulation by twisting it tight with a broom-handle; but his companion prevented, and endeavored in vain, to render him quiet. He then seized the cover of a tub, and repeatedly smote his head with it violently, but without any serious injury. Soon after, he went to the window, and broke one of the squares so as to furnish a spear-pointed piece of glass about four inches long and one and a half wide at the larger part, with which he inflicted the wound which occasioned his death; seizing the fragment by its larger extremity he thrust the point, with great violence, into the right side of his neck just under the angle of the lower jaw, the plane of the instrument traversing the axis of the neck, and then by a rapid succession of cuts, from side to side, without withdrawing the instrument, he succeeded in making a continuous wound extending quite across the right side of the neck, even beyond the median line in

front, and situated in a line with the space between the os hyoides and the thyroid cartilage of the larynx. He immediately tottered and fell into the arms of his companion, who thrust his handkerchief into the wound to staunch the blood; but the unhappy man gasped convulsively two or three times, and was dead.

Several medical gentlemen were soon present; but no process for resuscitation seemed to be indicated, and as the bleeding had ceased, nothing was done.

He had not lost much blood however, — by the largest estimate but little more than a pint.

What, then, was the immediate cause of his death, — and why was it so sudden? It was possible that an answer to these questions, might be found in some obscure but fatal injury inflicted in the depths of the wound. I therefore proceded, early the next morning, to make a careful dissection of the parts involved in it.

The integuments had been divided to the extent already stated, and the edges of the wound, although somewhat uneven, were much less so than we should expect, considering the manner in which it was inflicted. The sterno-mastoid muscle had a cut on the anterior face and inner edge, which divided about a quarter of its fibres. The anterior and lateral strait muscles of the os hyoides and the thyroid cartilage were separated widely: but the vocal tube was no where penetrated. The deepest part of the wound was at a point directly behind the right corner of the os hyoides, terminating on the very parietes of the œsophagus. To reach this place, the point of the instrument passed through a triangular space, bounded by the jaw above, and by the sterno-mastoid, and the sterno-hyoid respectively, laterally, which is filled with adipose tissue, and a cluster of glands, one of which was in this instance cut in halves. In this course, it had the sheath of the great vessels on the outside which was untouched; above and near by, the lingual artery, and below, somewhat further off, the superior thyroid, neither of which were injured. All the important nerves also escaped. The par-vagum, sympathetic, recurrent and interior thyroid, were particularly examined and found uninjured.

On returning to the superficial part of the incision, the mouth of a divided vein, was noticed among the fibres of the platysma, which was probably the principal external jugular, and the source of most of the hemorrhage which occurred.

I am unable to account for the sudden death of this man,

Errata. — page 118, at 23d line should read, The anterior and straight muscles of the os hyoides were divided, and this bone and the thyroid cartilege were separated widely, &c. At 27th line for 'corner' read 'cornu.'

except by attributing it to the admission of air into the external jugular vein — an accident which has lately attracted the attention of surgeons, by some fatal instances of it occurring under very painful circumstances. Once before, at least, this vessel has been the seat of the accident, and in this case the neck was put on the stretch when the wound was inflicted, which would favor the patency of the vein — the tumultuous state of the circulation which existed at the time, made it still more likely to recur. The manner of his death also corresponded with that which is described in such cases, as I suppose his to have been.

If any of our readers can suggest a more probable explanation of the event, on the facts above stated, he will confer a favor by communicating it; for I know that many good physiologists are yet reluctant to admit the accident referred to, to be an adequate cause of the sudden deaths which have been ascribed to it, and perhaps some who are not, may consider it questionable whether the case above related, is a genuine instance of it.— F.

Anatomy.

The House I Live in — part first. The Frame. For the use of Families and Schools. By William A. Alcott. 18mo. Boston, 1834. Lilly, Wait, Colman, & Holden.

Class Book of Anatomy, designed for Schools, &c. By J. V. C. Smith, M. D. 12mo. Boston, 1834. Allen & Ticknor.

Introduction to the Study of Human Anatomy. By James Paxton. *Vol. II. First American Edition, with additions.* By Winslow T. Lewis, Jr., M. D. 8vo. Boston, 1834. Allen & Ticknor.

The three works which stand at the head of this article have all been issued from the press in this city within the year. We introduce them here, partly to show that the study of Anatomy is not forgotten among us, and partly to afford us a theme for some general remarks on the subject.

The two first works, as they are avowedly not intended for the profession, might be passed over without remark. If Anatomy and other branches of the Science of Medicine are to become popular studies, these books may well answer the

purpose for which they were designed. Dr Alcott's book, which treats of the bony frame of the body, and is illustrated by comparing it to the frame of a house, is very simple and intelligible, we think even, that there is an affected simplicity, and at the same time a mystery in the parallel which he runs, that is quite unneccessary.

The Class Book of Anatomy is written in a style more simple and popular than we usually find books prepared by scientific men, and it is copiously illustrated by allusions to objects and operations which are familiar to the student. It is not to be concealed, however, that the work is defaced by many typographical errors and some departures from fact, which must be attributed, not to any want of knowledge on the part of the author, whose reputation as an anatomist is too well known and established to admit of impeachment, but to want of care. For all these, however, Dr Smith is responsible. Both the above works are illustrated by numerous wood cuts, and from either of them many new ideas may be derived.

Whether it is expedient to introduce the study of subjects connected with medicine into common education at all, may be a fair subject of debate. It is true that every man desires to know something of the 'House he lives in;' and if his curiosity ended with its anatomical structure, it might be well. But if he knows something of anatomy, he will desire to know something of physiology, and then of pathology; and having gained some general ideas of diseases and their treatment, either vanity, avarice or parsimony may lead him to undertake the cure of maladies for which he is in no ways competent. By pretenders of this sort, and by domestic prescriptions in general, we too often find diseases aggravated and prolonged, which a properly educated physician would have readily controlled. The question is, whether all meddling with medical subjects ought not to be discouraged. Not that the number of the physician's patients may be increased, for every one has reason to believe that the amount of disease he attends is none the less from this cause, though he may be more seldom called, but from motives of benevolence. Almost any other science may be attempted and trifled with, and no harm be done, if no good is effected. But in this science human life is involved, and this is a boon too dear to every man to be tampered with; 'All that a man hath will he give for his life.'

Paxton's Anatomy is a work which we take pleasure in recommending to all men who have any desire to gain a general

and indeed a somewhat minute knowledge of anatomy. The plan and execution of the work will receive universal approbation. We certainly never have seen a text book got up in better style, so far as regards typographical execution. The wood cuts are numerous and beautiful. We believe it will be adopted as a text book for beginners, as fast as it is circulated and known. It has been objected, indeed, that it is too simple and elementary. To this we cannot subscribe; a general outline, embracing however all its parts, is all of anatomy that the student can gain, with profit, from books. Its minute details are to be learnt from dissection alone. If a man hopes to be an anatomist, and to make anatomy of practical use to him, he will dissect; unless he does this, he may as well rest satisfied with the most general notions of the subject. It is true that Paxton's Anatomy is very concise and elementary, and as such, deserves a place in every gentleman's library, but at the same time it is comprehensive, and covers the whole ground which the student wishes to go over.

We have said that the publication of these works serves to show that the study of anatomy is not forgotten amongst us. But there are other and much more substantial and delightful proofs, that there is no mistake about this. Recent provisions in the laws of our Commonwealth afford the most satisfactory evidence that the public mind has become enlightened on this subject, and that anatomy, practical anatomy, is to assume its legitimate place. No longer is our State to persist in the absurd paradox of requiring a competent knowledge of anatomy for the practice of medicine, and at the same time not only making no provision for, but imposing the severest penalties on any one, who shall employ the only means of acquiring it in such a way as to be of any practical value.

At the last session of the Legislature the following act was passed.

'Sec. 3. *Be it further enacted,* That it shall be lawful for the Board of Health, Overseers of the Poor, and Selectmen in any town in this Commonwealth, and for the Directors of the House of Industry, Board of Health, Overseers of the Poor, or Mayor and Aldermen of the City of Boston, to surrender the dead bodies of such persons as it may be required to bury at the public expense, to any regular Physician, duly licensed according to the laws of this Commonwealth, to be by said Physician used for the advancement of Anatomical Science; preference being always given to the Medical Schools that

now are, or hereafter may be, by law established in this Commonwealth, during such portions of the year as such schools, or either of them, may require subjects for the instruction of Medical students. *Provided, nevertheless,* That no such dead body shall in any case be so surrendered, if within twenty four hours from the time of its death, any person claiming to be kin or friend to the deceased, shall require to have said body interred; or if such dead body shall be the remains of a stranger, or traveller who suddenly died before making known who or whence he was: but said dead body shall be interred, and when so interred any person disinterring the same, for purposes of dissection, or being accessary thereto, shall be liable to the punishment provided in the first section of the Act to which this is in addition. *And, provided further,* That every Physician so receiving any such dead body, before it shall be lawful to deliver the same to him, shall in such case give to the Mayor and Aldermen of the City of Boston, or to the Selectmen of any town of this Commonwealth, as the case may require, good and sufficient bond, that each body so by him received, shall be used only for the promotion of Anatomical science, and that it shall be used for such purpose within this Commonwealth only, and so as in no event to outrage the public feeling; and that, after having been so used, the remains thereof shall be decently interred.

'Sec. 4. *Be it further enacted,* That the body of no person, requesting during his or her last sickness to be interred, shall be surrendered under the provisions of the third section of this Act.'

Thus the study of practical anatomy in Massachusetts is placed on the most liberal footing: and although in the present state of society, this act will not probably, provide legally for *all* the wants of science, yet it does much now, and much more prospectively. The time is fast approaching when every neighborhood will be blessed with its physician who shall be acquainted with anatomy so far, that he will not hesitate to perform a capital operation in surgery, should circumstances demand it; and the patient shall not lose his life, or remain in agony while he is obliged to send for a surgeon fifty or a hundred miles, his own physician in the meantime sitting idle by. Even in so trifling an operation as taking up the brachial artery, which may be wounded by accident, or perchance by his own lancet in venesection, it is not now uncommon to find regular practitioners who dare not engage. For any such ignorance

as this, whoever may be henceforth educated in our schools will be totally without excuse. Hitherto, a man might reasonably plead against the charge of malpractice or incompetency, that the law of his land had virtually placed it beyond his power to qualify himself: but it is no longer so. Certain it is that at no previous time has there been in the schools of Massachusetts so decided a prospect, that if the student does not make himself a thorough anatomist, it will not be for the want of subjects. Nor do we believe that opportunities for dissection will be more abundant at any other school in the Union.

The spell which ignorance and superstition have raised to obstruct the progress of anatomy has been broken; and Massachusetts has the honor of having been the first to succeed in dissipating it. One other State, at least, has also succeeded in legalizing the study of anatomy, and obtaining the requisite provisions; and there is little doubt that the example of our own State and Connecticut will soon be followed by all the other States. We hope that the community may realize all the benefit from this provision which they have a right to expect. And while we hope that all due respect will ever be paid to the relics of the dead, we also hope that all illiberal and superstitious notions will be done away. — G.

Boylston Medical Prize.

At the annual meeting of the Boylston Medical Committee of Harvard University, August 6th, 1834, a premium of fifty dollars or a gold medal of that value was awarded to Charles Caldwell, M. D., Professor of the Institutes of Medicine, &c, in the Transylvania University, for a dissertation on the question 'Are the restrictions on the entrance of vessels into port, called Quarantine laws, useful? If so, in what cases should they be applied?'

This question has an important bearing upon the well-being of the community and the facilities of commerce: and the public, we find, are anxious to know what conclusion has been arrived at, or what light has been thrown on the subject, by the author of the above Dissertation. We have been permitted to extract the concluding paragraph, which contains a summary of his views. His conclusions as derived from his

reasoning are of course not the legitimate subjects of criticism or remark, until the process by which he arrived at them is known; and we are authorised to say, that the public will soon be put in possession of them, by the publication of the Dissertation.

'Finally, febrile contagion, like other poisons, having a character and permanent property of its own, must produce its effects independently of all adventitious auxiliaries. Semi-contagiousness, therefore, as already intimated, is a term without a meaning. No disease, moreover, is contagious, which is limited in its prevalence, by time or place, — which exists, I mean, only in given situations, and under given conditions of the atmosphere. But plague and yellow fever have been shown to be complaints of this description. They are controlled by temporary and local influences. Hence their destitution of contagion, and the want of wisdom in governments, in establishing and maintaining against them, expensive and pernicious systems of Quarantine — institutions, which, in time to come, will be known only as matters of history, and will be quoted by posterity, as evidence of the error and superstition which had once held dominion over the minds of their forefathers.'

The following questions for the year 1835, are now before the public, viz.

'1. What diet can be selected, which will ensure the greatest probable health and strength to the laborer in the climate of New England? quantity and quality, and the time and manner of taking it, to be considered.'

'2. What are the diagnostic marks of cancer of the breast; and is the disease curable?'

Dissertations on these subjects must be transmitted, post-paid, to John C. Warren, M. D., Boston, on or before the first Wednesday of April, 1835.

The following are the questions for the year 1836, viz;

'1. How far are the external means of exploring the condition of the internal organs to be considered useful and important in medical practice?

'2. To what extent is an active medical practice useful, in the common continued fever of this country?'

COLLECTANEA.

Discovery of Lymphatics in the Human Placenta and Funis, by Dr V. Fohmann. — It is well known that the placenta and funis rank foremost among those parts in which the presence and distribution of absorbents have not yet been duly recognised. Some anatomists certainly, such as Everhard, Pascoli, Needham, and Röslin, who are cited by Schreger, as also Wrisberg, and Uttini, insist that they have seen absorbent vessels in these parts; but little reliance was placed on their observations, because men of great reputation, such as Hunter, Hewson, Cruikshank, Mascagni, and others, had in vain endeavored to demonstrate them. Moreover, as, after the establishment of Hunter's doctrine of absorption by the lymphatic vessels, new experiments were made which appeared to favor the theory of absorption by the veins, and the attempts to discover absorbents in the placenta and funis were unsuccessful, these parts were, without farther consideration, declared to be unprovided with absorbents, and were even employed as a proof of absorption by the veins. It was maintained that venous absorption was not only proved by numerous experiments on live animals, but also by those parts which, though not provided with absorbents, were yet organs — such as the placenta, eye, &c. in which the existence of an active absorption could not be denied. Now in this there was evidently a false conclusion. The fact that absorbents have not been found in certain organs does not prove their non-existence in those organs, but only that we have not been able to discover them. In general, physiologists relied too much on superficial examination of these vessels, and were thereby led into many errors. Thus Magendie contested Munro's and Hewson's doctrine of the presence of absorbents in all the *vertebrata;* and still denies the existence of vasa chylifera in birds. Fishes and amphibia have a perfect absorbent system; the intestinal canal of birds, and many other parts said to be without absorbents, are plentifully provided with them; and the placenta and funis are, as we shall prove, in the same predicament.

The funis consists, its blood vessels excepted, of a tissue of absorbents, which is so close that the point of a needle cannot be introduced into any part of it without wounding one. Nothing can be easier than to inject them with mercury. Had the anatomists who asserted that they observed absorbents in the funis,

been rightly aware of their situation, it would have been easy for them to convince their opponents of the truth of their statement by ocular demonstration. To fill them with mercury, nothing more is necessary than to pierce the sheath with a small lancet, and then inject the metal through a fine tube. As a great many vessels are necessarily wounded in this operation, and the mercury, on entering one branch, gets into others through numerous anastomoses, it is evident that the experiment must easily succeed. It must here be remarked that the filling of the absorbents of the funis is the more readily accomplished, the fuller it is of the *liquor Whartoni;* which no doubt arises from the fact that fluid distends the vessels (absorbents) in which it is contained, and consequently favors the entrance and advance of the mercury. For the rest, it would be vain to endeavor to discover in the funis and placenta absorbents provided with valves, as Wrisberg pretended he saw, or as we find them after leaving the venous organs of the body. The absorbents of these temporary structures do not attain to such a degree of development, but are circumstanced as they are in the parenchyma of the organs; that is to say, they form tissues and net works, of which, the branches are valveless, so that mercury injected into any one can proceed in all directions.

If we wish to enter minutely into the examination of the absorbents of those parts by means of which the communication between the mother and fœtus is maintained, we have to consider those vessels as they exist in the placenta and funis, as well as their passage into the body of the fœtus, and their distribution therein. The funis, its blood vessels excepted, consists solely of a tissue of absorbents, as has already been mentioned. The larger ones occupy its axes, while the smaller ramify towards the surface, and are at length lost in the sheath. The cells or vesicles usually observed in the funis are shown by injection to be dilatations of the absorbents, into which branches from the placental side open themselves, and continue their course to the fœtus on the opposite side. The absorbents of the funis become perceptibly finer at each of its extremities, and especially where they enter the cutis at the umbilicus. But before I proceed further with a description of them in that situation, I must relate what I have observed of them in the placenta.

By injecting with mercury the tissue of absorbents at the placental extremity of the funis, and driving the metal towards the placenta with the handle of a scalpel, we may sometimes succeed in injecting a network of absorbents that is spread out between the placenta and its investing membrane. I never saw any vessels rising from this net work, and ramifying into the membrane, (the chorion,) as has been observed with respect to the sheath of the funis; and I but seldom discovered any bran-

ches penetrating the parenchyma of the placenta. Where they proceed when they do penetrate, I have not been able to make out; but I am inclined to think they reach its uterine surface.

On the passage of the tissue of absorbents of the funis into the abdominal region of the fœtus, the superficial ramifications at the distance of a few lines from the umbilical ring, become so very minute as to be scarcely discoverable by a strong lens, even when injected with mercury. On the other hand, the deeper seated vessels gain in strength while they lose in diameter; so that we can employ the handle of the scalpel to drive the mercury on through them without any fear of their rupture. On reaching the umbilical ring, they become somewhat larger, and some of them run into the dense tissue of the absorbents between the epidermis and cutis, of which the sheath of the funis is only a continuation. The rest unite into branches, which proceed under the cutis, and at the distance of some lines from the umbilical ring generate a lymphatic trunk, which, running in a circular direction, forms another ring. This gives off branches which, following the external abdominal veins, descend between the cutis and the muscles to the inguinal region, and pass under the crural arch to the iliac glands. I have invariably observed this distribution; but I have sometimes also found lymphatic branches beneath the abdominal muscles, proceeding from the funis through the umbilical ring, and following the vein or arteries into the porta of the liver, or else running to the glands which receive the vessels that descend without the abdominal muscles. — *Dublin Journal.*

Preservation of Subjects for Dissection — Treatment of Dissection Wounds. — In the last number of the Lancet, was mentioned the strong antiseptic qualities of charcoal powder, and its consequent power in removing the stench connected with dissection. As the warm weather has now commenced, and the scalpel will, I hope, be liberally used in the dissecting-rooms this summer, it may be of utility to state that I find nothing so effectual in preventing putrescency as injecting the veins * with a strong solution of nitre and common salt. If used warm, before arteries are injected with the wax and tallow, it preparatorily increases the temperature of the body. This is much better than scattering salt or any other antiseptic over the dissection, which must necessarily obscure, if not derange, the parts. The plan I have mentioned preserves the pearly whiteness of the tendons, and often improves the color of muscles. I have seen the latter, af-

* Mr Brookes used to inject a solution of nitre alone into the arteries. This is not so well, because it obstructed the progress of the wax.

ter having been in the dissecting-room three or four weeks, when cut into, as red as christmas beef in the shambles. Another recommendation is, that should the dissector cut his finger, the stimulus of the salt seems to counteract the effects of the impregnating matter. Out of the numerous instances of my pupils who have cut themselves, I have not known a troublesome case, save one, where there was palpable neglect. My invariable advice to the student who cuts himself is, to wash the part for ten minutes with soap and warm water, then to suck the cut well for the same length of time, and, lastly, defend it completely by surrounding it with several turns of straps of adhesive plaster, so as to perfectly intercept the wounded finger from all adventitious matter, when the student may immediately renew, if he chooses, his dissection again, with impunity. In every case where the above plan has been adopted, no sensible degree of local inflammation has succeeded, and no bad effects whatever have been produced.

In some neglected cases a great deal of pain is often produced by the collection of a very small quantity of matter under the aponeurosis of the finger, which, if not let out, will be probably succeeded by enlarged axillary glands and more extensive symptoms of irritation. I know the presence of matter has been denied by many, but my experience has proved that as soon as an exit was made for it, the intolerable pain has at once ceased. This was remarkably so in the troublesome case already alluded to. This pupil I took to a consulting surgeon of high repute, and proposed to him that an opening should be made, with which he did not coincide, alleging that no matter was present. In the night, however, the pain became so intolerable that I was induced to do it; a small quantity of matter escaped, and the patient was instantaneously and permanently relieved from pain. — *Lancet.*

Muscle in the Eye of Fishes, by W. C. Wallace. — I beg leave to announce to you the discovery of a muscle in the eyes of fishes, solving the problem of the accommodation of their eyes to distances in a more satisfactory way, than by a greater or less degree of convexity of the cornea. The muscle is triangular, apparently attached to a nerve at one extremity. Another extremity is attached to the capsule of the lens at its axis. The third passes through a loop in the iris, and is attached to the vitreous humor. The lens is drawn backwards, when the portion attached to it contracts. When the portion that passes through the loop, is called into action, the vitreous humor is pulled forwards pushing the lens before it. This structure exists in the streaked bass, the sheap head, the blue fish, the sea-bass and the poigee, the only fishes, in which I have had an opportunity of looking for it. — *Silliman's Journal.*

Cases of Re-union of parts, after long separation from the body, by M. Marley. — Cases of the above description are rare, and well knowing the scepticism of surgeons even as to the *possibility* of such re-union taking place, I am induced to offer my opinion from my own knowledge of the fact. However difficult it may prove for the physiologist to account for re-union of fingers, toes, ears, &c, when we have cases recorded by surgeons of undoubted veracity, it is scarcely fair to question the fact because we have not met with similar instances ourselves.

A boy, of about eleven years of age, had one half of the first phalanx of the index finger of the left hand severed by a flagstone. Half an hour elapsed before the separated part was reapplied. I employed the usual means, — strips of adhesive plaster ; union took place rapidly. The nail came away, which was succeeded by a new one, and there was a perfect sense of touch in the part.

Another case recorded by you as related by Dr Angelo, in the *Annal. Univ. de Méd.* for September last, I consider of equal interest. It is somewhat remarkable that his case so nearly resembles mine, the subject of it being a boy, who had injured the index-finger of his left hand, and I may add that the progress of the case in every respect was similar.

Dr Merrem, a German physician, has made some extremely interesting experiments, the probable results of which may ultimately benefit the science of surgery. He experimented upon the head of a dog by making a circular incision through the integuments, and removed a piece of bone by the application of a trephine. The part of the cranium chosen for the experiment, was where the parietal bones join the occipital. The longitudinal sinus was opened as it enters the transverse sinus, and about three ounces of blood, or rather more, was lost. He then placed the circular piece of bone in its original place, and having united the integuments by suture, the wound was completely healed within two months, and in no way did this experiment interfere with the health of the animal. The dog was afterwards killed by poison (laurel-water),when, upon examining the head, the portion of bone which had been removed by the trephine, had perfectly united with that which surrounded it. A similar operation was performed on a cat, with the same success. Dr Merrem is of opinion, that in a case where this operation might be performed for the purpose of evacuating matter formed within the skull, it would not be proper to replace the bone immediately, but where the formation of matter has ceased, he thinks we might supply the place of the original bone, by a piece taken from a sheep, a dog, or some other animal. — *Lancet.*

Feuchtwanger on Carrageen, or Irish Moss. — Its chemical composition appears to me, as far as I have been able to trace it, of very considerable importance, the jelly formed by dissolving it in hot water is not only composed of starch but contains a large proportion of pectic acid a considerable quantity of sulphur, and some chlorine and bromine and another acid combined with lime have been discovered, the latter proves to be the oxalic acid.

Neither the fungic nor boletic nor lichenic acids could be detected and the existence of iodine I have not been able as yet to detect. By extracting the pectic acid with caustic potassa, I found the moss taken up and altogether dissolved, and after treating the gelatinous mass with chloride of calcium, muriatic acid and applying alcohol to separate the acid, at least, 0·6 of this last was the result.

By reducing the moss to coal and dissolving it in water, sulphuretted hydrogen gas was evolved very abundantly; protoxide of iron, subcarbonate of potassa, diluted sulphuric acid and lime water gave copious precipitates.

The chemical characters of this moss are too interesting to be considered as completely determined by the few superficial experiments, undertaken to discover its properties, especially as they were made at a time when I have been continually interrupted by an attention to the duties of my profession; and I consider them as having been undertaken more for the satisfaction of my curiosity, than as tending to a complete and scientific investigation of such an invaluable medical substance as carrageen; but I hope to be able very shortly to develop with more accuracy the entire composition of this singular moss.

The carrageen seems to possess qualities similar to the Iceland moss, which according to Berzelius's last analysis, (a masterpiece in every respect,) consists in 100 parts of 3.6 syrup, 1.9 bitartrate of potassa, tartrate and some phosphate of lime, 3.0 bitter principle, 1.6 green wax, 3.7 gum, 7.0 coloring matter, like extract, 44.6 lichen starch, 36.2 starch-like matter; but carrageen is without bitter principle, contains nothing but soluble matter and the quantity of nutritious jelly, produced by a small portion of it, gives it the most indisputable preference. It was first introduced by Dr Reece, who considered it a most important article of food for invalids, and Doctors Sulby, O'Reilly and Sir Henry Halford, speak of the carrageen as the most nutritious article of diet for invalids they are acquainted with, as well as a light nutritious food for delicate and weakly children. In this respect, it is certainly superior to arrow-root, sago, &c, being more highly nutritious, easy of digestion, and pleasing to the taste.

Prepared with warm milk and sweetened, it is most particularly recommended as a breakfast for consumptive patients.

Decoction of moss, made by boiling half an ounce clear moss

in a pint and a half of water or milk until reduced to a pint, is recommended as food for children affected with scrofulous or rickety diseases, for such as are delicate and weakly and for infants.

There are some printed directions for the manner of using the carrageen moss for medicinal, and culinary purposes, accompanying some imported from England, from which I shall make here an extract.

Directions for using the Moss Medicinally. — Steep a quarter of an ounce of Moss in cold water for a few minutes — then withdraw it, (shaking the water out of each sprig) and boil it in a quart of new or unskimmed milk, until it attains the consistence of warm jelly — strain, and sweeten it to the taste with white sugar or honey, or if convenient, with candied Eryngo Root; should milk disagree with the stomach, the same portion of water may be used instead. The decoction made with milk is recommended for breakfast for consumptive patients; and with water will be found a most agreeable kind of nourishment, taken at intervals during the day, the flavor being varied with lemon-juice, or peel, Seville orange juice, cinnamon, or wine, of any sort most congenial to the taste.

The decoction in water is also taken for the relief of cough, at any time in the course of the day, when it is troublesome, and it is, for this purpose, simply sweetened with honey.

In Dysentery, the decoction either in milk or water, may be administered with equal advantage, and in addition to the sweetening matter, if a tea-spoonful of the Tincture of Rhatany be mixed with each cupful of it, tone will thereby be given to the intestines, at the same time that nourishment will be conveyed to the system, and irritation prevented — a large tea-cupful of the decoction may be taken three or four times a day.

As a pleasant, strengthening food, boiled with milk and strained with the addition of a little sugar, it is unrivalled for infants. Persons take it in this way for breakfast or supper, with the happiest effect, who are sustaining an attack of the cholera.

It only remains to state, that the Carrageen or Irish Moss, as a domestic article is peculiarly interesting; it is the best thickener of milk, broths, &c, makes excellent jellies, and for Blanch-Mange is equal to most expensive ingredients, while the cost is comparatively nothing; it may be used instead of isinglass, jellies, &c. — *Silliman's Journal.*

New Anthelmintic. — In a short memoir, M. Noverre, physician at Martinique, has drawn the attention of practitioners to the *arapabaca*, as an anthelmintic which is infallible in its action,

enjoys a sedative power, and is also possessed of a peculiar property, which admits of its being administered in all possible cases, without aggravating inflammatory symptoms, should they happen to complicate the presence of worms in the intestinal canal. This latter quality gives it an immense advantage over turpentine and other stimulant purgatives, which are at present so universally employed in worm cases; and has been recognised in the plant by all physicians who practice in Guadaloupe, Cayenne, Martinique, and South America.

The 'spigéle anthelmintique,' *arapabaca*, is an herbaceous annual plant of the pentandria monogynia, growing in South America. The stem of the plant is round, and the leaf verticillated round the summit. It is commonly administered in the form of syrup, of which three spoonfuls are given to an adult, or to a child of three years old a tea-spoonful. At the moment of administration it is customary to add a spoonful of cold water and a few drops of lemon-juice. The same dose is repeated for three days, and then a mild purgative is given. A singular effect of the medicine is sometimes the production of a slight amaurosis, when it is administered under the influence of solar or artificial light. Among the most remarkable properties of this remedy the author enumerates the following. Its action is always efficacious: it is agreeable to the taste, and children always take it without evincing any repugnance. Enjoying a sedative property, it calms the nervous symptoms which so frequently complicate the verminous disorders of childhood. It is not calculated to produce or aggravate inflammation of the intestinal canal, and may therefore be administered in cases where most other anthelmintics are inadmissible. However, it is prudent not to administer it whenever there are any symptoms of cerebral congestion; for it is a narcotic acrid poison, and if given in too strong a dose, may occasion severe accidents. The action of the plant generally takes place on the second, or even the first, day after its administration. The author supports this assertion by an enumeration of cases in which the efficacy of the remedy as an anthelmintic is fully established; and says, it is administered with confidence by all the inhabitants and practitioners of the Antilles and Martinique. — *French Gazette.*

Cholera. Boston yet remains free from the cholera, only one case having occurred which would bear that name. This one terminated favorably two or three weeks since, and a report of the particulars will probably be given in our next. Several cases of Cholerine, however, have occurred, all of which, so far as we have been able to learn, have yielded readily to medicine.

Pendleton's Lithog.ʸ Boston.

REFFERENCES TO THE PLATE.

Fig. 1. An oblique view of the forceps for upper molar teeth, having one beak pointed and fitted between the two external fangs, and the other beak formed like those in figure 7, to embrace the inner fang.

Figures R, L. Transverse views of the same forceps, showing the beaks turned laterally to render them more convenient, one pair for the teeth of the right side and the other for the left.

Fig. 2. Forceps for the under molar teeth, with two pointed beaks, so fitted to the fangs of the teeth that if viewed transversely the beaks would appear to embrace the tooth as in figure 3. These forceps are also made right and left by turning the beaks in opposite directions laterally, as with figure 1, R, and L.

Fig. 3. Curved forceps for the molar teeth of either side, with both beaks pointed to fit between the fangs. These are the most convenient for the teeth of the left side, when the operator cannot use the left hand with dexterity, which is required in applying the left hand forceps of figure 2.

Fig. 4. The narrow curved forceps for the single teeth of the under jaw. These have been made right and left, but there appears to be no necessity for this variation. There should be two pairs, one with beaks about an eighth of an inch thick, or not thicker than the narrowest teeth on which they are to be used, the other pair with beaks proportioned to the largest single teeth. Their application extends from the *incisores* to the *cuspidati* inclusive.

Fig. 5. Straight forceps for the single teeth of the upper jaw. The same rules apply to these with regard to the thickness of their beaks, and the class of teeth which they are calculated to extract.

Fig. 6. Large curved forceps for the wisdom teeth of either jaw, with beaks formed at their extremity like those of Fig. 7, but wider. The object of these forceps will be readily seen, when it is recollected that the crowns of the wisdom teeth are often quite spheroidal, and the fangs so converging and united as to form but one conical root.

Fig. 7. This figure is given to show the form and construction of the internal surface of the beaks — smooth and hollow at the thickest part where they are to receive the crown, and less hollow and file-cut near the extremity, where they are intended to grasp the neck of teeth. (as between the dotted lines in Fig's. 4 and 5.) This principle is carried out in all the forceps.

Fig. 8. This is to show the beaks of the forceps in common use with a flat internal surface, toothed or jagged in such a manner as to be liable in all cases to crush the crown of the tooth, (see Fig. D, dotted line) or to slip as soon as the points are rendered dull and smooth by a few applications.

Figures. A, B, C, are drawings of decayed teeth, which had been broken beyond the reach of the key, and were taken out by the forceps with as much facility as if they had been whole.

In using the forceps, it is only requisite to press their sharp extremities between the gum and socket, till they can be made to seize the tooth at the part to which they are fitted, then to grasp the handles only so firmly as to prevent their slipping from the hand in the effort to extract — then after a very little lateral, and rotatory motion in opposite directions till the tooth begins to move, the operation is almost at the same moment to be concluded by lifting the tooth nearly perpendicularly from the socket.

In using the forceps which are for the upper molar teeth of the left side, it will be found most convenient to hold them in the right hand with the extremities of the handles towards the thumbs, or in that position which is called backhanded.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim." — WILLIS.

SIR CHARLES BELL ON CASES OF HERNIA.

THE physiological investigations pursued by Sir Charles Bell, during the last twelve or fifteen years, have been attended with results so brilliant, and so attractive to the medical profession, that his merits as a practical surgeon have enjoyed less consideration than those of many of his cotemporaries, and far less than they justly deserve.

But the doctrines of life and organization, developed by his patient and expert research in the Windmill Street School, have been constantly and successfully applied to the cure of diseases in the Middlesex Hospital; and since the London Journals have given us the cliniques of the eminent surgeons of that metropolis, we have had none more replete with sound and practical principles, happily announced and illustrated, or containing altogether more valuable surgical instruction on the subjects they relate to, than those of that learned and fortunate man whose name stood associated, as its author, with the only natural and

scientific arrangement of the Nervous System. We give a favorable specimen in the following Lecture on 'Hernia' — a disease at once so formidable and common, as not only to bear, but to demand 'line upon line, and precept upon precept.'

'*Femoral Hernia.*— I proposed today to make some remarks on these two cases of hernia, which you have just visited with me, both occurring in women, in whom the operations have been successful.

'Our progress in professional knowledge is not represented by a straight line: we do not move uniformly forward, but rather like a man on skates, whose efforts receive a bias, and who, after certain complimentary manœuvres to the admiring crowd, returns very nearly to the point of the circle from which he set out. You will be more sensible of this as you advance in life. In recommending you to study the anatomy of hernia, I may suggest this to you — that if you proceed in your dissection with a fine-edged scalpel, hook, and forceps, you may display all the fasciæ that have been minutely described in books, and yet remain ignorant of the exact ligament or tendon which strangulates the gut, or, indeed, of the nature of those passages through which rupture takes place. Let me, then, advise you to *feel* your way here. Suppose you were in the situation which I held early in life, that of assistant to a lecturer, and that he required you to make such a hernia on the dead subject as he could operate upon, — you must make your incision into the abdomen; you get your hand into it, and feel all round the inside of Poupart's ligament, and round the pillars of the rings, in search of the internal ring; but you find no outlet. The first thing you are called on to admire is how completely — how perfectly, this lower part of the abdominal walls is closed up — how admirably it is contrived that the viscera shall not slip out by the arch, under Poupart's ligament, which admits the vessels to the thigh, nor through the spermatic passage.

'But being forced to make an inguinal hernia, you begin to work at that point where the vessels of the testicle or cord (scarcely yet a cord) pass through. The vessels of the testicle pass between the two portions of the transversalis fascia; and, at last, you bore in your finger, and make the passage wider and wider. What do you feel? You feel that towards the inside — that is to say, towards the pubes — you have a difficulty in enlarging the passage; you feel the sharp edge of

a tendon or ligament, and that you must break it down by force, so as to bring the internal ring nearly opposite to the external one; at last, your finger slips out between the pillars of the external abdominal ring. Now this is an admirable demonstration, although there be nothing seen! You have what is better, a distinct *feeling* — a conviction of what it is that makes the stricture, whether at the inner or the outer ring. Now you understand what I mean by recommending you to trust to the finger, or to the touch, rather than to the eye.

'Formerly, in my course of lectures, when I came to this subject, I was happy to speak of Sir Astley Cooper's work as one creditable to himself, to the profession, and to the country. I conceive that in that publication the anatomy is perfect to its end; for I hold that the anatomy may be carried too far. You will say that it is a strange opinion: how can it do any harm? By occupying your minds too much, to the exclusion of things more important; and I hold that the pathology of the intestine, from which the very rules of practice are drawn, is more important than the anatomy of the rings. Besides, it is quite possible, as I have seen, for students to dissect and work on the fasciæ of the groin and inside of the abdomen for the greater part of the season, to the neglect of many subjects equally important in practice. That is what I mean by saying that the anatomy may be carried too far; it may occupy too much of your time and attention.

'Now I wish that the abilities of my friend Mr Guthrie had been directed to a different subject. By taking up this, he appears to me to be re-touching a portrait that was already finished. A picture which had been carefully composed, varnished, framed, hung up, and admired, he takes down again, and retouches, and, I had almost said, daubs it with foreign colors. I am unwilling to acknowledge these foreign authorities, for, after all, their utmost merit is to have done in their own country what Sir Astley Cooper has given them an example of in this. I am not about to deliver anything new: but I have always thought, and do now think, that in consequence of the discussions concerning the parts around the sac, there has been rather a neglect of the great principles of pathology which are to be drawn from the contemplation of the gut. I have heretofore criticised freely some of the opinions in Sir Astley Cooper's great work, upon the same grounds that I would now criticise his commentator.

'It is conceived that the stricture, in inguinal hernia, may result from the contraction of the muscular fibres of the passage. Now I would ask you, for already you are acquainted with the data on which we reason, do you observe any difference in the symptoms of a hernia when it comes through the spermatic passage, and when it comes under Poupart's ligament; when it comes through some of the accidental rents in the abdominal walls, and is called an abdominal or ventral hernia; and when it comes through the umbilical passage, and is called *exomphalos;* or when it is an internal hernia, and passes through the diaphragm or the obturator ligament? Is there any record of symptoms to distinguish the case according to the part through which the intestine passes? Is it not, on the contrary, universally assented to and understood, that the symptoms of hernia are the same, in whatever part the disease occurs? Now you observe how this bears upon the question, because, if the symptoms of a hernia be universally the same where there are muscular fibres and where there are none, it is pretty clear that these symptoms must be attributable to something else than the muscular fibres of the ring. Why is it that the pain is always referred to the umbilicus? Because the girding of a portion of the intestine is attended with an action in the intestine itself, and the pain is first fixed in that part, and then passes round, as in colic, attended with a twisting in the region of the umbilicus; which pain again returns to the part which is strictured, wherever the stricture may be. The irregularity, or rather the return of the pain, is the character which belongs to spasmodic action; but this spasm is not from the girding of the stricture around the intestine, but from the action of the intestine itself: it is a muscular tube, and in it, as in all muscular parts, the pain occurs in paroxysms.

'But in order to keep our attention to points of practice, and not to fall into theoretical disquisition, I must now read a case of femoral hernia.

'*Irreducible Femoral Hernia — Operation.* — "Mary Booth, fortytwo years of age, a married woman, was admitted into the hospital on the 19th of December, at one o'clock, with an irreducible femoral hernia of the left side. She first perceived it two years ago, and it came down when she was lifting a heavy weight. She was brought into this hospital, and relieved by the warm bath and the taxis. She was dismissed;

and from the time she left the hospital she has worn a truss, and has not left it off since. About eight o'clock on the 19th (five hours previous to her admission), when she was moving a heavy weight, she found great inconvenience in the seat of the rupture, and, on taking off the truss, she found the swelling had suddenly increased in size. A medical gentleman was applied to, who was, however, unable to reduce the tumor, and he advised her to come into the hospital immediately."

'Let me observe, that if, as I have sometimes flattered myself, we have been, of late more successful in cases of hernia, it is not owing to any improved principle or practice on our part, or our greater activity or dexterity, but to a general improvement. There is no practitioner in our neighborhood who is not aware of the necessity of immediate assistance, and now the patients are brought more directly under our observation. This is, in fact, the cause of our better success.

'When she came into the hospital the taxis was employed, she was bled to syncope, put into a warm bath, and the attempt at reduction made again, but in vain: the tumor remained of the size of a large walnut; not, however, very tense. There appeared a small swelling on the right side also; but for this she had not worn a truss. She was now very sick; and although she said that her bowels had been opened twice during the day, about two hours after her admission the pain became very severe, and extended all over the abdomen. At nine A. M. the bath was again employed, but without success. The surgeon of the week was sent for; he examined the swelling, and after the necessary consultation he determined on operating."

'You saw the operation, gentlemen, and now I shall merely remind you of the mode of performing it. You may either draw a fine-edged knife over the integuments, or operate as you saw me do, by pinching up the integuments and cutting them while they are held so. The only advantage of this mode is that you do it at once, with little pain to the patient. You may, however, on making the incision, attempt, if you choose, to leave such a flap as will cover the neck of the sac, and enable you to put your compress on with more effect. Under the integuments were the fat and glands, and certain filaments of the external fascia mixing with the fat. After a little dissection, you saw we came to the neck of the sac — to the crescentic arch. Now, if you are operating, you should prosecute the dissection so as fairly to expose the crescentic

arch, and consequently be more careful in clearing the neck of the sac than the body of the tumor. If it be a large hernia, you are not to draw the knife over its whole length. I have, many years ago, seen the surgeon, when the tumor was large, draw his knife from the top to the bottom. If it be small, this must, of course, be done; but the object of the incision is to get to the neck of the sac, and it is not to be long, in proportion to the tumor. If you cut the whole length of the hernia, you have the whole mass of intestines in your hands; than which, nothing can be worse, for it is then difficult to reduce them: you are forced to handle them, tumble them about, and squeeze them; and when you reduce them at last, it is ten to one but you have inflammation of the whole mass, and death the consequence. Perhaps I should have reserved this remark for a case of scrotal or umbilical hernia; but it is enough that you understand me.

'There is a peculiarity in femoral hernia; I mean the fineness of the sac. First, you have a sheath round the proper sac, which deceives you, because owing to the regularity of its form, you are apt to take it for the true sac. It is not the sac, but the fascia over it thus curiously moulded. You catch it in a fold with the forceps, and, carrying your knife horizontally, open it; then you introduce the bistoury, slit up the membrane, and then you find what appears to be the intestine; and many have allowed themselves to be so deceived, thinking they have come to the intestine, because the surface now presented has so much of its shape and color. Look narrowly into it, and you will find that you have not the blood-vessels as they should appear; or take the membrane between your finger and thumb, and you will feel the nucleus within — that there is still a sac, though a very thin one, between your fingers and the intestine. You open this, the true peritoneal sac, and out spurts a serous fluid. The serous exudation from the surface of the intestines and the interior of the sac, points out directly that you have penetrated the peritoneum, and now slitting it open, you see the little dark-colored fold of intestine. This is the moment decisive of the patient's fate: you judge of success or failure by the appearance of the intestine. If it be very dark, you are alarmed. The intestine may be dead, and ready to slough, or it may be dark by extravasation, or in consequence of the mere gorging of the veins. You saw in this case, that, although dark, the vessels carried blood, and that I therefore thought right to reduce the

intestine. Now, as to the manner of doing this, it is well to say that the finger is the best director; but take care that you do not use your finger here for that purpose, for by the attempt to squeeze in the finger between the neck of the sac and the intestine, you will be in danger of bruising the already tender intestine irreparably. You smooth down the gut and pass in your director, and then the bistoury along the groove of the director; and, keeping the points of these two instruments together, you separate them by raising the knife like a lever. You need not cut, or draw the knife, but just separate the two instruments, and the effect is that you do not cut the soft cellular texture, but only the part which resists. It is the firm edge of the sac and ligament which resist; and these only are cut. Need I say that your assistant should in the meantime, carefully guard the intestine?

'Now if you wait for a minute there is no harm — you may perhaps have the pleasure of seeing the immediate change in the color of the intestines (for the circulation has been very much impeded); if it is free, after this delay it takes a livelier color, which is the most favorable symptom you can desire. What do you next? Push up the intestine? No; gently draw it down — *very gently;* because I beg you to recollect that where the intestine has been long held in the grasp of a sharp stricture, it is hurt and made tender; especially the inner coat. You gradually pull it down, because you have to press out the contents of the intestine, and if you do that while there remains any degree of stricture at the part of the intestine which has been long held and bruised, you may do a great deal of harm. You pull it down, in order to bring the healthy part of the intestine opposite to the neck of the sac? and then you compress the intestine. You do not even now attempt to push it up, but you compress it, so that the fluid which has accumulated in it (perhaps the fæces, but more likely a mucous secretion) is urged forwards. The intestine then being flat, with a very little assistance on your part it is drawn in; and if it be so drawn by the excited intestines within, that is another favorable circumstance, and promises well.

'But suppose that it happens, as it occurred in this case, that when the sac is opened the intestine appears in an unfavorable state; what is to be done? You heard what my colleague said; he advised the gut to be opened, and I have often done it; but it is a most serious question, and is not to be done unless you have grave reasons for it. I remember being in

consultation, in precisely the same circumstances, with my friend Mr Brodie; whose plain good sense in these matters is above eulogy. He inquired, "shall we open the intestine?" I begged that he would put a warm sponge upon the intestine, and that we should retire for a moment. We did so; and it was agreed between us, that if the color of the intestine recovered during the short interval, then it should be returned; and further, if it did not appear to be decidedly recovering, that, without any further intercourse of signs or words, he should touch the surface with the point of the lancet; and if the blood came, that the intestine should be reduced. On returning to the patient, the blood did start from the touch of the lancet, and the intestine was returned. The patient recovered.

'I will give you another reason why, in this case, I returned the intestine; for, paying all due respect to the opinion of my colleague, it suggested itself to me that the color of the intestine was not such exactly as we find to be produced by congestion; it appeared more like ecchymosis, the effect of the severe pressure used during the employment of the taxis. It was this circumstance which influenced me to reduce the gut; and by the success of the measure, we may say that it was well the distinction was made. But, in passing, you will not fail to recollect the degree of injury that may be done to the surface of the bowel, by too much pressure in the attempt to reduce it.

'The operation was performed at twelve o'clock; an hour after the operation a common injection was administered. At four o'clock the bowels had not been relieved, but the pain was less, and the patient had been dosing; the pulse ninety, and soft; the tongue clean and moist. There were now given her six drachms of castor oil and two drachms of tincture of senna. At ten o'clock the bowels were relieved once, and she then began to take a little calomel and opium, two grains of calomel with a quarter of a grain of opium. In the morning she had slept a little; the bowels had been relieved three times in all since the operation; the pulse ninetysix, and soft; slight pain in the abdomen; tongue clean and moist. I need not go on with these particulars, though it is right that they should be noted down; I will merely state, that everything went on successfully.

'I have only one remark to make on the treatment. At one time I entertained the idea, that after such an operation, and after the intestines had long suffered, as they must neces-

sarily do in hernia, by working under their load, and when they were in a condition prone to inflammation, the best thing that could be done was to allow them to remain quiet under the influence of an opiate, and to evacuate only the lower part of the bowels by large clysters. But, after experience, I found it to be of the greatest consequence to have a full operation on the bowels, only taking care that it should be obtained by the mildest possible means. If you administer castor oil, it will probably be rejected; but if you add to an ounce of it three drachms of tincture of senna, it will be more likely to remain on the stomach, and produce a full and repeated operation on the bowels, bringing away scybalæ, and effectually relieving the intestines. When this is done, you have the fairest possible promise of success; yet even then we cannot be quite relieved of the apprehension of peritoneal inflammation.

'Now there are some questions that suggest themselves from this case; and there are others arising from what I know to be passing in your minds.

'With regard to the propriety of opening the gut, let us think what is the object of that practice. When the patient dies after the operation, you very often find that the part of the gut which was down in the herniary sac, has been so injured, that it has refused to act; that is to say, its muscular fibres have not been excited to the series of actions which should proceed in regular succession in all the length of the intestinal canal; and the portion that was included, though freed, has continued to be the cause of obstruction. When we think that the intestine is so far gone, by the process of incarceration (and strangulation supervening on incarceration), you are sure that the muscular fibre will not act, even after the stricture is removed, and the intestine reduced into the abdomen. When we find an intestine in such a condition, and we are very certain that it will not resume its action when reduced, it is better to slit it up at once, and to relieve the upper part of the bowels, introducing from the slit a clyster pipe, and allowing the accumulated flatus and secretion to pass off; for if you have understood the principle of pathology, you will recollect that the grievous symptoms in hernia proceed from the distention of the portion of the canal between the stomach and the stricture.

'When by such means the pressing danger is removed, you have produced the case of anus at the groin, and have to think how that is to be managed.

'But the next thing that occurs in the present case, and which I know you are discussing among yourselves, is the recommendation of removing the stricture without opening the sac. See, then, what took place here: I found, upon cutting the crescentic edge or the little wing-like process which goes down to the sheath of the femoral vessels, and which is continued from the lower or inferior edge of Poupart's ligament, that the stricture was not taken off. You saw that I had considerable difficulty; you saw that the operation was as tedious as it was difficult; but you could not see what I beg to assure you of, the great care that I took of the intestine, neither to finger it too much, nor to compress it too strongly, and for the reasons I have assigned. I found that the stricture was not removed, that it was in the neck of the sac, and not in the tendon. Those of you who were near me must have seen with interest, that the operation appeared to be finished — that the tumor disappeared — that the intestine was *removed from the eye;* but the case was not satisfactory to me; so that, after it must have been supposed by you that the operation was completed, you saw me draw the whole portion of intestine down again; that then the assistant took firm hold of the sac, pulling it down so as to be on the stretch; that I passed the director and bistoury again between the gut and sac, and cut the stricture deep, a full inch within the crescentic arch. That which I cut was the edge of the stricture of the proper sac. You will now reflect upon what is stated in the narrative of the case, that from the time the patient first came into the hospital she had worn a truss. Remember what is the effect of a truss. The pressure of a truss produces a change in the peritoneal sac, and you have always to fear that a certain degree of stricture, or unusual firmness, will occur in the neck of the sac, when there has been a truss long worn. This is one of the disadvantages, contrasted with the many essential advantages, of a truss; it produces a condensation which entirely destroys the natural elasticity of the neck of the sac, and produces some cord-like filaments in it.

'A patient was brought into the hospital moribund, and died; and we had an opportunity of examining him. He had been operated upon by the taxis, and the surgeon was convinced that he had done everything required of him. A tumor was discovered quite within the muscular walls of the abdomen, which proved to be the strangulated intestine within the peritoneal sac; so that the surgeon had reduced the sac,

and the intestine within it; and the stricture which produced the strangulation being in the mouth of the sac, there was no relief, and the patient died. Here, then, is the first thing that you will reflect upon when this question is agitated, regarding the propriety of opening the sac. Always remember that, in certain circumstances, the stricture is in the neck of the sac itself.

'Now I go freely into this question, because I have studied it, as I stated before, and acted upon it long ago; I have repeatedly, within the last few years, in operating, taken off the stricture by dividing the tendon, and have reduced the intestine without opening the sac. Having done it, I say that I do not feel a disposition hostile to the practice; but I have to recommend you to be guarded, for you see that it is possible, even when the sac is opened, to reduce the intestine without relieving the stricture: how much greater the danger when the sac is not opened at all! On this very occasion, where I hope you saw that there was every care taken in the performance of the operation, I had got the knuckle of intestine within the ligament, and out of sight — to all outward appearance, successfully reduced. But the condition of the parts did not satisfy me. I thought of the dangers, and resolved to bring all down again, and to trace the edge of the sac to the stricture, and to make certain of its division. In certain cases, such as in a recent hernia, where it is quite clear that there has not been time for the condensation of the sac; and again, in a large hernia, it may be right to dissect the fibres from around the mouth of the peritoneal sac, and to reduce the gut without disclosing it.

'The recent publication of Mr Key on this subject is highly creditable to him; and I conceive it to be a very fortunate circumstance, when our great hospitals are in possession of those well-informed men, who have their minds alive to all the improvements, and all the important questions of practice. However, I do not mean to say that he conceives it is a new question. When I attended Dr Alexander Monro, the father of the present professor, he delivered himself in the most animated manner on this subject. He was a thoroughly well-educated man in surgery, and he saw more surgery in consultation than most operating surgeons do. He had, in two or three cases, advised the operation to be performed without opening the sac, and these cases terminated successfully. I well remember, that he delivered himself on this subject with

that liveliness of manner which shows a man to believe that he has made an important improvement. He perhaps carried the suggestion too far, or sustained it too ingeniously. He was so far short-sighted in this matter, as to conceive that the opening of shut sacs was very dangerous, owing to the admission of atmospheric air within them; and one of the cases which he brought in illustration led to a good deal of good-humored criticism, — that of a man who died from inflammation of the pericardium. In the detail of the case, it appeared that "this shut sac had been opened by the thrust of a red-hot poker!" Most of us thought that there was sufficient cause of inflammation, independently of the admission of air, which doctrine was then the Doctor's hobby. He carried his theory so far, that he conceived it possible that the Cæsarean section might be performed with safety, if done under water. But still, by those instances, you see how he meant to argue against the practice of opening the sac of a hernia.

'I was about to read another case, but that will bring up other questions, and questions of great importance; I will therefore defer it till I next have the pleasure of seeing you.

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'The next thing for your consideration is the cause of strangulation. At the last lecture, in considering the subject as stated by Mr Guthrie, I suggested to you that the circumstance of muscularity in the stricture may answer the purposes of argument in inguinal hernia; but I stated, and I trust stated correctly, that the symptoms are the same in all herniæ; that the spasm, the intermission of pain, and the return of it after a cessation, were characteristic of all herniæ; and that therefore it did not serve as an explanation to represent the action of the transversalis muscle as accounting for the peculiarities of the symptoms. When the intestine is first pushed down, it is not strangulated, because the finger-like projection of the peritoneum, which is thrust through the opening in the walls, does not as yet, permit distention of the intestine; and if the intestine be not distended, it is immediately withdrawn — there is nothing to prevent it. There is every reason to believe that a hernia forms gradually by successive efforts pushing a portion of intestine or omentum into the finger-like process of the peritoneum, until both sac and intestine are thrust through the opening. When the intestine has escaped through the passage of the abdominal walls, then it is in danger of incarceration. I do not believe that any hernia forms at once, but that the bowels force against the peritoneum, and press this

membrane into the passage; moulding it, and forming the finger-like process, which I have often found and preserved: at last a powerful and sudden effort pushes the gut quite through, and then strangulation may take place very quickly.

'The tumor is the more dangerous, the smaller the portion of intestine. Mark, I beg you, the true difference between an old and large rupture, and a small and recent rupture. You will have a patient come to you with an imperfection in different parts of the abdominal walls; so that if you make him cough, there is a protrusion, perhaps, at the inguinal passage; another in some part of the belly; a third at the umbilicus. Such tumors gradually enlarge, and come down more and more; but the man is in no danger from strangulation. These ruptures are easily reduced, and often difficult to retain; whereas, if a horse soldier be mounting suddenly into the saddle, and in the moment of exertion feel a pain, and if he be obliged to leave the ranks, and the surgeon find a hard tumor in the groin thus suddenly formed, the man is in imminent danger, and a few hours will decide his fate. It is the same with a sailor in the excitement of an engagement, who putting his foot on the stock of the cannon, pulls with all his strength at the rope, if in that moment of exertion, when the abdominal muscles are compressing the viscera, there slip down a portion of intestine, it is strangulated almost immediately, and his fate determined, although he may live for days after it.

'Now there are sufficient reasons for this on mechanical principles: it is not a disease, and the terms acute and chronic are not applicable; for there is no analogy here with acute or chronic diseases. When the portion of intestine is by violence forced suddenly beyond the ring, or under the Poupart ligament, it has escaped from the abdomen. Now I entreat you to observe the importance of this word — *escaped:* by this you understand that there is a certain pressure on the parts within the abdominal walls; but that the fold of intestine has been forced out into the loose cellular texture, and escapes pressure, so that presently it undergoes distention! What with the suddenness of the distention, and the narrowness of the passage, the gut rapidly changes its condition; first to be incarcerated, where it cannot be reduced, and then to be strangulated, where the circulation is stopped. I will consider the case under three heads: 1, the distention of the gut; 2, the obstruction of the circulation in the gut; and, 3, the collection of serum between the gut and the sac.

'Suppose a large portion of intestine has descended, the fæces gradually accumulate in it; by and by, the part of the intestine that is in the hernial sac is distended; of the fæces that are collected there, none can come out, — the turn is too acute; and the consequence of this is that no part of the contents of the intestinal canal can pass beyond the hernia. This is not the state of strangulation, — it is the state of incarceration, by the filling or distention of that part of the intestine that is within the sac.

'Again, with regard to the mucus, — the secretion from the internal surface of the intestine itself; I have seen an operation in which the intestine has burst: I have seen another case, in which a small nucleus of intestine was wounded by the surgeon's knife; and what do you think came out? — only clear mucus. You can easily understand, that when a portion of intestine is down in the sac, the stricture may not be so tight as to produce strangulation, and yet be sufficient to impede the return of the blood by the veins of the intestine. There is then a gradual effusion; first, between the coats of the intestine; secondly, a secretion of mucus within the intestine: and, lastly, serum is exuded from its peritoneal surface. By this you perceive that over-distention of the intestine may take place by the dropping down of feculent matter from the canal, and by mucus secreted from its internal surface. Hence, you see that strangulation occurs, almost as a matter of necessity, in these circumstances; that the danger is increased even by the secretion of the intestine itself; and that, what with the infiltration into the coats of the intestine, and the secretion of mucus into its cavity, matters get worse and worse; and the intestine, as it is thus distended and thickened, is drawn tighter and tighter against the stricture.

'The next head is *the serum.* — Now, I observed to you, at the last lecture, (and you saw the occurrence in the operation,) that the moment you open the proper sac, the serum spouts out; and you judge much of the condition of the parts, and of the likelihood of effecting a cure, by the state of this fluid. You are pleased to find that it is transparent; you are disappointed, if it be dark and bloody. What I was going more particularly to say, however, is, that this secretion of serum, whether it proceed from the inner surface of the proper sac, or from the surface of the intestine, is often the means of counteracting the distention of the gut, and retarding the advance of alarming symptoms; for the secretion into the sac,

and without the intestine, prevents the sudden distention of the intestine, and that, of course, prevents the strangulation. Further, on this head, I request you to observe, that there is another point of practice in which you must take the secreted serum into your consideration. You are sometimes deceived in the operation of the taxis, because, when you press for a length of time, you say, I am succeeding, for the tumor is diminishing; but, alas! it is not a diminution of the distended intestine that you are producing; you are merely reducing the amount of serous fluid external to the gut. It is highly important that you should notice this circumstance, for it is very apt to make you believe that you leave the patient in safety, when the little knuckle of the intestine is just as it was before, or in rather a worse condition, being more subject to have its vessels gorged, and to run into the condition of strangulation.

'The next circumstance that we observe in the operation, is a leather-like thickening of the intestine itself. There can be nothing more unlike than the portion of intestine which you see on dissecting a body, or in its natural condition, when alive, and that portion which you have presented to you in the operation for hernia. It is not only discolored by the pressure on the veins causing a remora of the blood, but it becomes leathery, by the secretion within the coats. You know that the veins are compressed before the arteries, as they are more passive, and the arteries are active: just as the ribbon, in tying up the arm for bleeding, compresses the veins, and leaves the arteries pulsating, so does the stricture act on the intestines.

'This consideration will point out to you how the gut strangulates itself; — that, by the infiltration and distention of its coats, although the stricture be no narrower, the intestine becomes more compressed, and its circulation more and more impeded; so that it acquires a dark purple color, in addition to the increased thickness of its coats.

'I think I before mentioned, as an agreeable circumstance, that when you have undone the stricture, you find that almost immediately this dark color changes to a brighter hue. This I would attribute to the freedom of the circulation being restored to the intestine, rather than to the influence of the atmosphere on the blood in the vessels; because I mark this difference, that, in operating when too late, there is no such change produced in the color; whereas, if you operate at a happier time, on removing the stricture by a little touch of the

knife, and restoring the freedom of the circulation, you see a brighter color in the gut.

'I beg leave to direct your attention to the *taxis*. I need not repeat the common rule, as to placing the patient in a relaxed position, so that there shall be no resistance to your effort from the abdominal muscles — that the body should lie curved, the shoulders and hips supported, and the spine sinking so that the muscles may be relaxed. You attend also to the position of the thigh — that it is raised, and the toe turned in: in short, you are careful both to relax the walls of the abdomen and the connexion between the fascia of the thigh and the Poupart's ligament; (a remark, however, that especially regards the femoral hernia.) You then press upon the intestine, but do not at once attempt to push it up; for it is utterly impossible to do this. What is the object? It is to compress the intestine gently; for you remember that it has escaped — that is to say, that there is more pressure on the parts within than on the small portion without; you equalize, therefore, the pressure; but you do more — you empty the included gut of its contents; and in order to accomplish this, besides squeezing, you stroke the tumor downwards, in order to stretch the neck of the sac. If you push the whole tumor up you twist the intestine at the neck of the sac, and make it utterly impossible to empty the gut, or to reduce it. The object is to compress the tumor gently and equally, in order to get the contents of the intestine which is in the sac out of that portion, and into the part which is within the abdomen. Accordingly, as soon as you hear a little gurgling, as if the intestine were emptying itself, you know that you are about to succeed, because you have subdued the angle of inflection which the intestine makes around the stricture. You have now to make the intestine itself empty, and then, by a little more urgency of the finger, it is excited to draw itself into the abdomen.

'Bleeding is very proper. Not having succeeded in the taxis at first, the patient should be bled. I would say bleed, because the principal danger is from inflammation. But they say, 'bleed *ad deliquium*;' and this is recommended on the idea of there being spasm in the neck of the sac. I do not, however, object to bleeding even to this extent; seeing it is right to take away blood, whatever the theory may be. As to the application of a cold lotion, or ice, I say it is wasting time. The warm-bath is another useful means for relieving pain and spasm in the

bowels; and I have explained to you how spasm, by drawing the gut and producing tormina, does harm: but do not employ it without bleeding, because then there is too much excitement. After bleeding, the warm bath is favorable to reduction; and if you must wait, it certainly tends to keep off inflammation. A tobacco clyster has been recommended, but I never think of using it, for it is dangerous — it weakens too much; and the alleged object of employing it still is to take off spasm from the ring. I know not what can be the advantage of tobacco, unless it be to reduce the patient to that condition that he himself supposes it is all over with him; and so he lets you do what you think good. If it reduce him at once to that state of sickness — to that apparent approach of death that the friends permit you to operate — there is advantage; but recollect this may be carried too far, and a patient has actually died under the influence of the poison. The main objection to all these successive means is, that precious time is lost.

'In the next place, as to clysters, you would not give purgatives with the idea of withdrawing the intestine from the sac, because it cannot be withdrawn when in a state of distention: you must remember that drawing the intestine in that way is pulling it where it is tender, and lying against the sharp edge of the stricture. What is worse than all, by purgative medicines we excite the upper portion of the intestine, and accumulate the secretions in it; thence causing more twisting of the bowels, contraction, pain, and inflammation. But there is not the same objection to large clysters, because they only excite in a certain degree; and when the excitement comes on, the intestine is immediately relieved of its contents, and there is a period of rest to the upper part, and a relief of the pain which proceeds from the twisting and working of the bowels. So far clysters are harmless; but we cannot say that anything is harmless which leads to delay, and I would advise you to trust neither to position nor to bleeding, nor to bathing, nor to clysters, nor to tobacco, nor to anything but your own hand. All these modes of reducing a hernia are nothing compared with the well-directed and careful efforts of the surgeon's hand; and when that fails, urge the operation immediately. Do not wait for the effect of these remedies; they are nothing. The moment that you find the tumor is hard, incompressible, not yielding in the slightest degree; that there is no gurgling, no diminution of the convexity and hardness, not the slightest appearance of getting the contents of the intestine out, urge

with all your eloquence the propriety of the operation; for there is little danger if the operation be performed at the proper time — the greatest possible danger if it be delayed after a certain time.

'But to show you that I am not carried away by anything like theory, I shall tell you what occurred to me. A gentleman of large fortune, and of consequence from his position in society, felt a tumor in the groin. He lived thirty miles out of town, and he conceived that this tumor was a bubo: what reason he had for this notion is not our concern. He threw himself into the mail-coach that was passing his gate, and came up to town. When I saw him, and felt the tumor, I said that it was a hernia, but I could not convince him of it. He was drinking his cup of tea; but I saw him occasionally, from time to time, go into a back parlor, and I heard him discharging the contents of his stomach into a basin, and then he came back again. Friends came in, and he was complimented on his looks; he was excited. I explained to him his danger; I begged that he might have farther assistance, for I saw that I was not making the impression on him that was necessary; he had no conception of an operation being required. The celebrated Mr Cline, who was then in the zenith of his great practice, was called in. Here was a man who was allowed by all to be at the head of his profession; he saw the patient, and he said, "I am not sure that there is a hernia here at all." Of course, I lost confidence in myself; for Mr Cline I considered, and justly considered, the highest authority. I was quite thrown out. He appointed a meeting for the next day; and on the next day he said, "I believe you are right, there is a hernia; but the symptoms do not press." I had reconsidered the whole case, and had prepared for the operation. You will say it was weakness in me to yield to this opinion; no, it was right. We appointed to meet the following day, and on that next day the patient was dead. On dissection of the tumor, there was first found an inguinal hernia, and under that a crural hernia, containing a small portion of intestine, not larger than my knuckle, like a ripe cherry, but darker, and in a state of complete strangulation.

'Now this happens from time to time. The portion of intestine is nipped and strangulated, and that without any very urgent symptoms. What is the meaning of this? You see a patient with all the characters of a strangulated gut; and you expect that he will die, perhaps under your own hand.

This was the expectation in the very first case of hernia that I ever operated upon. All my colleagues said, "It is right that the operation should be performed, but it is hard for a young man to operate where there is no hope of success." The woman was sick, faint, and frantic; she was laid on the operating table by force — force, not against her reason, but against her delirious efforts; yet the operation was successful; whereas, in many cases that I could mention, there was no such prolonged suffering, no violence of symptoms, but still there was mortification of the gut. I say, then, it is most important for you to distinguish what is really meant by the symptoms of strangulation. I maintain, that there are no symptoms of strangulation; and I say that the symptoms of hernia are the symptoms of distended and obstructed bowels, and that they are precisely the same that we have from stricture of the bowel. I can give you an instance of it.

'I attended an old gentleman, a physician, who had a cancer in the rectum; and when I saw him his abdomen was greatly distended. He had had no evacuation; his pulse was quick, but weak; he was vomiting continually; he had hiccup; he had the *facies hippocratica;* he had all the symptoms of strangulated hernia. I passed an ivory tube through the ulcerated rectum, and threw up an injection, which injection brought away a quantity of yellow liquid matter, which filled a large hand-basin. The next morning he was well; not one of the symptoms remained; his countenance was better; the hiccup was gone; the distention of the abdomen was removed; he could pass urine without the catheter; the pulse recovered, and he lived two months after. He died of his cancer; but he was saved from immediate death as a consequence of over-excitement of the intestinal canal. Now I say it is owing to distention of the canal, in that portion of it between the stricture and the stomach, that you have what you term the violent and decided symptoms of strangulation; and if a man vomit easily, discharge the contents of his stomach from time to time, and the upper portion of the intestine be thus relieved by an anti-peristaltic motion, he may perhaps survive a long time, and may recover, if the intestine has been engaged and distended, but not strangulated. But if, instead of the gut being incarcerated, it be strangulated, that is, deprived of circulation through it, how long will he live? The symptoms which you find enumerated in your books are not arising directly from the mortification, or from the inflammation, or from the hurt inflicted

on the portion of the gut. Here is the source of discrepancy, then; here is the cause of the apparent contradiction in the history of cases; — that in some you have violent symptoms, and yet the patient does well, while in others you operate where there are no violent symptoms, and the patient dies.

'Now let us come to the question, how long you are to wait. Why, not a moment. Our very first authority was Mr Cline; and the surgeon I would most trust to, after Mr Cline, is Mr Cline's colleague; and what has he told us? That if the person be not relieved in four or six hours — I forget which — he would have the operation performed. Why wait four hours? What is going on during the four hours, if there be strangulation? What is strangulation? Strangulation, as distinguished from incarceration, is that condition where the intestine is so tightly embraced that there is no circulation in it. If that be strangulation, how long will the intestine live after it has commenced? Will it live half an hour? I do not know how long it may live; I should not think more than half an hour. Here is the point to which I have always wished my pupils to address themselves: first, to get a right notion of the symptoms; then they will be competent to ascertain what is really meant by strangulation; and if it be meant by that term that the circulation is cut off, it has to be determined how long should we wait before we operate? You see, then, that in this uncertainty you have to trust to the hand, to the feeling of the part, in judging of the possibility or probability of the reduction of the hernia; and if you cannot reduce it, do not wait for symptoms; for symptoms are most deceptive here. Urge an immediate operation.'

Improved Set of Forceps for Extracting Teeth.

Remarks on the use of an Improved Set of Forceps for extracting Teeth, by Josiah F. Flagg, M. D., *Dentist, of Boston. With a plate.*

There is no part of the human frame which is more commonly the seat of disease than the Teeth, and consequently none which is so much exposed to early decay. The improvements in dentistry have done much to diminish the amount of suffering which the diseases of them occasion, and

to prevent the consequent decay and loss of organs which are of incalculable importance in the physical economy of man.

Yet these improvements, like most others, have been too much in the hands of the few, while hosts have from age to age administered to the diseases of the teeth, with little effect but to augment the sufferings of the afflicted. The diseases of the teeth, and mal-practice, therefore still render it requisite to resort to the operation of extraction much more frequently than is desirable, or than would be necessary, provided the diseases of the teeth were more generally understood, and properly treated than they are even at the present day, by the majority of those who are operating as dentists. This operation, therefore, has constituted a very important part of dentistry, and an almost innumerable variety of instruments have been constructed for performing it. Yet from the time the earliest instruments were introduced of which we have any account, until within the last half century, all the attempts to vary and improve them have been made with very little advantage, since more regard has been had to the ease of the operator than that of the patient. And up to the time when Burdmore, Hunter and Jourdain wrote on the teeth, a few pairs of forceps, of rather rude form, and the instrument long known by the name of the German Key, a clumsy, and often useless or unmanageable article, were all the instruments in use.

Since then, the German key has been much improved by Spence, Savigney and Fox; and the latter, in his valuable work on the human teeth, has explained the principle of using the key in a more perfect manner than I have seen it done by any other writer. No improvement has been made in this instrument since, although numerous attempts have been made for this object. Various instruments combining the form and properties of the key and forceps, with a double claw, and calculated to rest on the teeth next the one to be extracted, have been constructed with the view to extract the teeth perpendicularly. But these have had their day of trial, and have been condemned as useless or mischievous, a judgment readily anticipated by every regular and skilful practitioner, since these, like many other instruments have been introduced by ignorant pretenders, who have *reasoned*, as they *supposed*, on the principle, of their operation, without knowing anything of the form and structure of the teeth, or their articulation with the jaw; and without even having been taught to extract a tooth with the instruments which had been previously in use.

Forceps of some form or other have always been used for

extracting the single rooted teeth, yet so little improvement has been made, that besides the unnecessary suffering which has been occasioned by the ignorant and unskilful, who practice tooth-drawing, there has been, and is still, too much caused by the scientific and dexterous operator, owing to the ill-adapted form and imperfect manufacture of these and other instruments.

A painful sense of this fact induced me in A. D. 1820, to attempt some improvement in tooth-forceps — all which had until this time been imported into this country from the best manufacturies in France and England; and all of domestic manufacture which were offered for sale, were of such a form at the beak, that a failure was almost inevitable, without repeated attempts in every operation. They were, and are still commonly made of inferior steel, and badly tempered; or of case hardened iron; and the beaks formed like those represented in the plate, Fig. 8, having a flat and nearly straight surface, on which was raised a few jags or teeth like those of a smith's rasp. Hence the common occurrence of crushing the decayed crown [as at the dotted line Fig. D,] before the tooth could be grasped with sufficient firmness to extract it; or the jagged teeth of the forceps becoming smooth after a few applications, the instrument was rendered almost useless by repeatedly slipping its hold, and mangling the rest of the tooth till it was broken below the edge of the *alveolus* or bony socket. These are facts which are but too familiar to operators and patients.

To prevent these difficulties, I had forceps made of the best cast-steel and carefully tempered, with jaws or beaks of the form of those represented in Fig. 7, concave or grooved on the inner surface, so that when closed upon the tooth, the weak, defective crown might be untouched, and the extremity of the beaks which were cut with fine file-teeth for about a line or two, [as seen in Fig. 7,] were made to embrace the tooth at its neck or at the deeper and sounder portion of the root, in the manner represented in Fig. 4 and 5, between the dotted lines. Different forms and sizes of these forceps were made, some with the jaws straight, [Fig. 5 and 7,] for the upper teeth; others curved [Fig. 4,] for the under teeth, and others with transverse jaws at right angles nearly with the handles, like those of the larger forceps, shown in Fig. 6 and 3, to be used for either the upper or under teeth, and for the extraction of the roots

of molar teeth which were too deeply situated to be reached by the key.

The use of these forceps I occasionally extended to the extracting of loose molar teeth, or those which did not require much force to remove them, and particularly the last or wisdom tooth of the upper jaw, which is often so situated that the key cannot be placed upon it.

Success in these trials, and the conviction that the key was a much more harsh and painful instrument in its operation than the forceps, so far as I had tried them, led me to have others made with their beaks formed to fit the double teeth in the same manner that those above described were made to fit the single ones. In this I am free to acknowledge that I was aided by a hint from Mr Fay, an American Dentist in London, who used for a time, and recommended forceps for extracting the molar teeth, but which were soon abandoned as ineffectual from their limited application, or unsafe, inasmuch as they were all right-angled forceps, and calculated to be used by resting a fulcrum on the tooth next the one to be extracted.

Rather more than three years ago, I had succeeded in completing the set of forceps represented in the plate annexed to this article. I have used them ever since for all cases of extracting to the *entire exclusion* of the key instrument. With regard to their usefulness, and superiority, when compared with the key and other common forceps, it will be sufficient to state, that the teeth are removed with them, by the application of much less force by the operator; and with the least possible pain to the patient, since the gum and socket are left nearly undisturbed, instead of being bruised and splintered in a manner which is very common from unskilful hands, and is too frequently unavoidable by the most adroit and well informed operator. Being anatomically fitted to the teeth they are not liable to slip or to crush the crown of the most defective tooth, if carefully applied, accidents which very frequently occur from the use of the key and common forceps. To illustrate these statements, I have given three figures, A, B, C, in the plate, which represent the fangs of teeth as we often find them broken by ill adapted instruments or with the crowns wasted by disease; such are easily extracted with the forceps here described; and the figures are accurate delineations of teeth which I extracted while I was doing the lithography for the plate. B, and C, had been chipped off by the application of the key till no further hold could be taken of them.

These instruments have not only been proved by my own hand, but I have ordered them for several dentists in this city and in other parts of the country. They have used them for nearly three years, and, I believe, with equal success; indeed with some of them I am assured that the key is a useless instrument.

I am aware that many Dentists in this country and in Europe make some use of forceps for extracting the molar teeth; but they still resort to the key in a great proportion of cases. Mr Koecker, whose book on Dental Surgery was published in London in 1826, is the only writer I have known who recommends the use of forceps for *all* the teeth, yet he gives no description of the instruments, nor have any been imported into this country since that time, which I should feel warranted to use for extracting any of the teeth, except such as are nearly ready to fall from their sockets by occasion of looseness.

In a more recent and valuable work, by Thomas Bell of London, we find directions for using forceps to extract the double teeth; yet Mr B. is particular in mentioning their great liability to crush the defective crowns,—a sufficient evidence, (as well as the drawing in his book,) that his forceps are not well fitted to the teeth; for in the proper application of a suitable instrument for extracting a tooth, be it key or forceps, the defective crown should not be taken into consideration, it has nothing to do with the operation, for neither instrument, if properly made, will crush a tooth; although either will hold one so firmly that it may be *broken* off even if it be sound, by an ignorant or clumsy operator.

That forceps which are calculated to extract the fangs of teeth which the key cannot reach, are a subject of some surprise and attention in England at the present time we have only to turn to the Medical Journals of the current year, where we shall find notices of Mr Shepherd's newly invented forceps,* and a drawing of the same, which is but a facsimile of those made for me by Evans of London, from my own drawings and patterns fourteen years ago. And in one of the latest English works on Dental Surgery, by Mr Jobson, which has been very favorably noticed in the London Medical Gaz. we find the following remarks on instruments, which are quoted also in that periodical.

'The forceps is a far more difficult instrument to use than the Toothkey; although this will not at first sight be evident, on looking at their respective construction, or attending to the

* See London Lancet, for May, 24, 1834.

mode in which they act. But it will soon be discovered in comparative trial of the two, that in applying the forceps great caution is necessary to avoid the danger of breaking the tooth ; and considerable experience is required to enable the operator to use the instrument with facility. But when a command of it is once acquired, it is undoubtedly the most applicable of all those that are employed for the extraction of teeth.' Yet when speaking of the key, Mr J. says, — ' the toothkey is an old invention, and although it is now the fashion to despise and abuse it (especiallywith those persons, as Mr Bell well remarks, who secretly resort to its use,) it is unquestionably, still the safest, and perhaps also the most useful of all the instruments that are employed for the extraction of the teeth.'

This evident contradiction requires no comment.

I have now only room to add, that my object in introducing this subject to the profession in the way which I now have, is with the view to have the instruments more generally or extensively tried ; confident as I am that they are calculated to prevent much human suffering. The artists who have taken much pains to make them in the most perfect manner (Messrs Weighand and Snowdon, of Philadelphia,) have manufactured a great number of sets, but they are not yet in general use, for when they have been presented for sale beyond the shop of the maker, only those will purchase them who, from a just knowledge of their profession, readily see the principle of their application, while many look at them and marvel how they are to be used.

The annexed Table, referring to the plate, will give all the directions for the use of each pair which can reasonably be desired by those who are disposed to adopt them.

Extraordinary Sickness in the Suffolk House of Correction.

A Severe endemic disease appeared among the prisoners in the House of Correction situated at South Boston, during the night of Monday the 22d instant, which, in its mode of attack, symptoms and termination, closely resembled that in the Mass. State Prison in 1832, a full account of which was published by the surgeon of that institution in the first volume of the Magazine.

It may be useful to premise, that the mode of confinement and discipline of our penitentiaries, are now the same as in the State Prison, and that the diet of the prisons is very similar, both in quantity and quality.

It is not known that the food or drink furnished to the subjects of the House of Correction, on Monday, the day before this attack, was in any respect unusual, nor different from that which they had received for many days, and even weeks, previous; and it is quite certain, that those individuals who were seized, had not fared differently from their fellow-prisoners, in respect to diet, labor, exposure, clothing or lodging. There was no circumstance to authorise the suspicion that any deleterious substance had been mingled with the food, nor did the symptoms in any case, suggest such a cause to the medical attendants.

Some of them began to complain soon after they were locked up for the night, and a few reported themselves slightly affected with the same symptoms the day previous; but in most cases the patient, having been well before, awoke from a short sleep seriously ill. The attack commenced with an intense pain across the abdomen, generally referred to the region below the umbilicus, but in many cases, to the epigastrium. Then followed nausea and vomiting, or painful and profuse purging, but most frequently both; sometimes the stomach, and sometimes the bowels taking the lead in the train of disorderly action. There were many cases where no gastric disturbance was complained of; but very few, if any, in which this symptom was unattended with unnatural evacuations from the bowels. When the vomiting was severe, the abdominal muscles were severely cramped, and in several instances this was the case with the muscles of the extremities also, and constituted the most distressing, and unmanageable element of the disease. In some cases a very remarkable shivering, like that of an ague, preceded the symptoms just noted. The evacuations were, at first, ingesta, and afterwards liquid,—those from the bowels generally indicating the presence of fœcal matter or bile, and those from the stomach giving a bitter taste. In two instances only were any evacuations observed, which resembled nearly the 'rice water' discharges, and those were both alvine.

The evacuations were not so copious here, as in the disease of the State Prison; but they were very frequent, and in some cases nearly filled a two-gallon tub. The temperature of the surface was always reduced, sometimes very considerably,

but without any remarkable perspiration. The tongue was moist with a thin white coat, which became brown and more dense as the disease was prolonged. The pulse of those who were examined immediately after the attack, ranged from 90 to 120, and was uniformly contracted and unsteady, and, although in several cases, at different periods of the disease, when the vomiting and cramps were aggravated, it was very much depressed, it never became imperceptible, nor in a state indicating collapse. Indeed the degree of prostration constituting this alarming condition, although nearly approached, was never fairly reached by one of our patients.

Between the hours of six in the evening, and three of the next morning, from forty to fifty individuals, situated in different parts of the prison and receiving rooms, were seized with the disease above described, and taken to the hospitals. Several others, more slightly effected, were served with medicine in their rooms, as soon as they complained, were soon relieved and proceeded to their labor, which was ordered to be gentle and under cover, the next morning.

The treatment pursued was rational, the indications being taken from the actual symptoms in each case.

In the first place, a pill containing one grain of Opium, four of Camphor and two of Calomel, was administered in every case where there was gastric disturbance. When this symptom was not present, five grains of Calomel were given, followed by a large portion of Castor oil and compound tincture of Senna. In these cases copious fœcal evacuations were generally procured in a few hours, with complete relief. In the other class of cases, the pill generally tranquillized the stomach, so that it would retain the oil and senna, the operation of which was aided, if necessary, by medicated enemata. Sometimes it was very difficult to procure alvine evacuations of any kind, even under the most active and various purgative appliances. The vomiting persisted in some instances, notwithstanding the administration of various opiates and cordials, aided by sinapisms to the epigastrium, enemata, and effervescing draughts, and while this continued it was attended with the distressing cramps in the abdomen and extremities.

At the present time, (Friday P. M.) four of the patients who were among the first attacked, continue to suffer in this way, by paroxysms, although much relieved and promising ultimate recovery. The irregular contractions have, at length, however, become extended to a large part of the muscular

system, so that some of the paroxysms beginning with cramps of the toes and fingers, exhibit, when at their height, complete opisthotonos. It can only be added, at present, that more than half have been discharged from the hospitals, with no complaint but weakness, and that all the rest appear to be convalescent. A few cases came into the hospitals on Tuesday and Wednesday, in which the commencement of the illness was referred to Monday night. F.

COLLECTANEA.

On the probable duration of Life among Medical Practitioners. — There is no part of medical statistics more painfully interesting, and at the same time important, than that which relates to the probabilities of the duration of life. Inquiry on the subject, it is true, scarcely tends to lift the thick veil which conceals the limits of individual life, and has little power to satisfy the pardonable curiosity which we all have, to know how long we may have to live: yet, when applied to masses, it enables us to arrive at results of great consequence, whenever provision is to be made for the duration of life in general, or for the probable duration of it at certain epochs.

In order to obtain the most satisfactory points of comparison, I have noted down 624 cases of death, occurring among physicians and surgeons, mostly all Germans, — and excepting anatomists, veterinarians, naturalists, and medical men, who are solely devoted to literature*. I have taken the age of twenty-three as my *point de départ*, both for the medical as well as the other professions (a comparison of which it is my intention hereafter to make public); but if others should choose twenty-four or twentyfive as the age from which we should begin to calculate, it in nowise interferes with the exactitude of the results.

Now we suppose the 624 individuals on whose deaths the table is constructed to have been contemporaries, or that they were all aged 23 at the same time. On this supposition the cypher 624 is placed in column C, opposite the age of 23; and as there are two deaths for that age, 622 is the cypher which must

*I have since calculated the mean duration of the lives of seventysix other medical men — thus making up the entire number 700; but I have not thought it necessary to enlarge my table by the addition of the results, which only serve to confirm those already obtained.

stand next in column C, corresponding with the age of 24 in column A. Thus the column C, is formed throughout, until the whole of the 624 are deceased, which is found to be at the 92d year. Column D, exhibits the number of years which may be allotted to each period — that is, the probable duration of life according to Halley's method. I have preferred the former which Halley follows to that of Deparcieux, as being less complicated, at the same time that it leads to the same results. By Halley's method, we find the probable duration of life very readily: we look into the column C, to ascertain at what age only half those living at any given period survive. Thus, if of 122 medical men who are 72 years of age, we find that the half are dead at 77, it would seem that the chances of the 122 reaching that age, and of not reaching it, are equal; and the difference of the ages (77 72) — nearly five years — is the length of time which those of 72 may hope to live. Nothing positive, of course can be predicated from the table respecting the probable duration of the life of any individual; but the general conclusions as experience has proved, are nevertheless *extremely certain*.

From this table we gather the sad certainty of the short career of those who practice the medical art. Supposing the ordinary duration of human life to be 70 years, we see that scarcely a fourth part of our medical brethren attain that age; and hardly one in 15 reaches the age of 80. Or again: if in youth the resolution be taken to devote ones self actively to the laborious pursuits of medical science and practice, in order to enjoy in old age the fruits of a life of exertion, it is a melancholy fact that one half the number of practitioners is cut off before that period: so that the remarks of Jean Paul are peculiarly applicable to our case. 'The life of man,' says this author, 'has often been compared to that of travellers or pilgrims: it seems to me rather to resemble that of an innkeeper, who is ever busy about his guests, receiving them, and seeing them depart; and who on the occurrence of every interval of unprofitable repose, longs for a fresh bustle, desirous of more work when at rest, and of rest when at work; always hoping for the time to come when quiet and ease will suffer him to enjoy his arm-chair in tranquillity; but, in general, before that time arrives, he is gathered to his eternal rest.'

But what are the causes to which we must attribute this low place in the scale of vitality held by our profession? It would be needless to enumerate them to those who are familiar with the extent of labor which the practice of medicine entails. There is, perhaps, no profession which requires more moral and physical exertion than ours, which allows less of repose, or of that tranquillity which is so conducive both to internal and external life. There is none which exposes the members of it to such bodily fatigue, such mischief from bad weather — such disturbance of

the night's rest, — so much watching, irregularity of meals, disorders of the digestive organs, and mental affections of all kinds: in a word, to such dangerous influences, perpetually recurring, and all tending to sap the vital powers. If we add to this, that there are far more practitioners cut off by contagion than are commonly supposed, we shall easily see the groundlessness of the satirical observation, that *sybaritism* is the rock on which medical men are wrecked. It may be mentioned, that in the table given above, the great majority of those who are the subject of it were country practitioners, whom to accuse of luxurious living were too bitter a satire, — one, indeed, wholly undeserved by a profession, which has such strong claims to public gratitude, since those who practise it abridge at least, if they do not absolutely sacrifice, their existence, in endeavoring to prolong that of others. — *Med. Gazette.*

Hysterical Aphonia. — Dr Paschen relates a remarkable and instructive case of aphonia in a young female, of a healthy habit and robust form, who had contracted a violent inflammation of the air passages, which left behind it a hoarseness; in consequence of which she could not speak, except in a whisper, not audible at more than one or two yards. This state made her shun society, and lasted more than two years, notwithstanding the trial of numerous antiphlogistic, derivative, and antihysterical remedies; and she had abandoned all hopes of cure, when, in mounting a ladder, she slipped, and fell from a height of about fifteen feet on the pavement. She lay senseless for about five minutes, when she gradually came to herself, and looking vacantly around her, asked, in an audible voice, 'Where am I?' The presence of a large contused wound on the occiput, shewed that this part of her head had come first to the ground. She was bled, and recovered without a bad symptom, except an erysipelas of the face, and never after lost her voice!

This case proves, in the clearest manner, that an inflammation of the larynx and organs of voice may so affect the nerves of the organs of speech as to produce a nervous aphonia; which may continue long after the original inflammation has ceased.

The effect of the sudden shock, resulting from a fall from a great height, was well exemplified in a case, also related in the Berlin Medical Gazette, in which a man, laboring under a most furious paroxysm of madness in delirium tremens, jumped out of a window four story high upon the pavement. He suffered several compound fractures, and was quite in his senses a few minutes after the accident! — *Dublin Journal.*

Lithotomy. Extract of a Letter from a Physician in Paris. I often attend Civiale's operations for stone, at the Hospital Necker. There seems to be no difficulty whatever in introducing the straight instrument into the bladder, and he sometimes succeeds in grasping the stone instantly; but very often he fails, and is compelled to postpone the operation on account of the pain experienced by the patient. I have seen his patients suffer more, apparently, from an unsuccessful attempt to break, or drill the stone, than patients generally do from the operation with the knife. Agreeably to a report, made by Larrey and Boyer to the Academy of Sciences here, on the account rendered by Civiale, of his operations in the Hospital Necker, more than one third of his patients die, besides those that remain uncured. This operation, as practised here at present, is not attended with that success that is generally supposed in the United States. There are a great number engaged in the operation, and each one has a different mode. From a report made to the Academy of Sciences by Baron Heurteloup, now operating in London, of his new instrument and its use, it seems that he has great success. M. Amussat has improved upon Heurteloup's instrument, and by his polite invitation I have seen him operate with it frequently. This is the most simple, and I presume the best at present. It is composed of two pieces, and when prepared to enter the bladder resembles a common sound. It is opened after entering the bladder; the stone is caught, and broken by percussion applied by means of a small hammer.

I have seen Amussat's patients suffer much from extracting the fragments of stone that lodge in the urethra after being broken to pieces.

I have taken some pains to collect all the information in Paris relative to the different modes of operating for stone. I have seen all the instruments that have been invented — have seen them tried often upon the dead subject, and the living, by their inventors, and those most skilled in their use, and I am now fully convinced, that the *lateral* operation is far preferable to any other mode practised at present. Notwithstanding the horrid success attending lithotomy, as performed by Dupuytren, in the Hotel Dieu, it is not so painful to witness or think of, as the operation of Civiale at Necker. Dupuytren loses one in four or five. — *Transylvania Journal.*

A jury was called to decide on the sudden death of a Mrs Covey, who was represented to possess a tremendous appetite, and died after eating voraciously.

A jury *de lunatico inquirendo* delivered a verdict of insanity

against a lady, on the ground that, during her confinement, she never used any other words than 'My dear — my darling — my love — my dear love.' Hard punishment for such innocent phrases.

Hemorrhagic Idiosyncrasy. — This week, at East Sudbury, a singular instance of death, from a trifling cause, occurred. Mr Benj. Sawin, of that place, stumbled, and in the fall slightly wounded his under lip with his teeth, at seven o'clock in the evening of Sunday, 10th inst. from which time he continued to bleed, notwithstanding the best medical aid until his death, which took place at six o'clock on the morning of the following Tuesday.

We learn that Mr Sawin some years since came very near bleeding to death, from a slight injury, and that he has a brother who is also subject to excessive bleeding from trifling wounds.

Brigg's Bulletin.

Cholera. — This disease made its appearance in Savannah and vicinity about the 1st of Sept.; on the 5th the Board of Health reported one death. Since then it has appeared at Augusta, and spreading along the Savannah river has produced much consternation. It is said to be very fatal among the slaves. At Halifax the disease has been very severe — in ten days, ending on the 13th, there were 440 cases, and 131 deaths. On the 20th inst. it had nearly disappeared in New York — the Board of Health had ceased their daily reports several days before, at a time when there were but four deaths in 24 hours. Latest dates from Europe state that it had entirely ceased in Madrid and Cadiz on the 27th of July. — Boston continues to be exempt from it, and is very healthy for the season.

Correspondents. — A paper on diseases of the genito-urinal organs in females, has been received from Dr Mc'Phail of Baltimore, which shall have an early publication.

Dr Yale's paper on cases of Polypus Uteri, is in the hands of the printer.

We welcome another laborer. in the ample field of medical literature in the 'United States Medical and Surgical Journal,' of which we have received the first number. The open lancet in its frontispiece, accompanied with the motto, 'And shall he not render to every man according to his works,' indicate the spirit, which we trust will characterize all its comments on medical writings and on the interests of the profession.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim." — WILLIS.

DR STOKES ON TREATMENT OF HYDROCEPHALUS, AND ON MERCURIAL GANGRENE OF THE MOUTH.

THE hydrocephalus of children appears to me to be a disease in which, of all others, the principles of treatment are most simple. The old idea of this affection was, that it was a species of dropsy, depending on the relaxed state of the cerebral vessels, and hence the term hydrocephalus. Modern pathology has shown that the occurrence of serous effusion is a mere accidental circumstance, as it is present in one case of arachnitis, and absent in another. When it does occur, however, *it is the result of inflammatory disease*, and it is to the prevention and cure of this that the practitioner must direct his attention. With the symptoms of this disease, I shall not take up your time, as you will find them sufficiently detailed in books; but with respect to treatment, I shall say that hydrocephalus is a disease *much more* under the influence of treatment than persons generally think. It is said that, when once effusion has taken place, the case is hopeless, and nothing can be done. This remark appears to me to be unnecessary, for there is no symptom from which you can venture to assert that *effusion* has set in. You may from the inflammatory state of the brain, have delirium, coma, deafness, blindness, and paralysis,

without any effusion of serum, and in many cases life has been saved, even after the appearance of all these symptoms.

This term *effusion* is one of the bugbears of medicine. Many patients are lost from the prevalence of false ideas connected with this subject; for as soon as *effusion* is supposed to have set in, the efforts of the practitioner are given up. Hundreds of patients die of bronchitis and pneumonia, in whom life might be saved if the symptoms of *effusion* had been treated for those of inflammation; and so it is with respect to the brain. This effusion is not the disease; it is not even a constant result of the disease. We have no certain means of ascertaining its existence; and we know, that, by a persistence in antiphlogistic treatment, life may be often saved, even after all the supposed symptoms have occurred.

Gentlemen, take this with you as a rule in medicine, — always to keep your eye more upon the causes than the effects of disease.

The treatment of hydrocephalus in the child should always be active, and conducted on the same principles as those of general encephalitis in the adult. Shaving the head, bleeding, when practicable, *repeated leeching*, *cold effusion*, *calomel* and *purgatives*, — these are the great measures upon which we are to rely for success. It is satisfactory too to reflect, that many cases have been saved by the prompt and steady adoption of this simple mode of treatment.

Of Internal Remedies. — The use of mercury seems to be that on which you should most rely. Some of the most singular recoveries have occurred after ptyalism has been produced. Let me remind you, however, that the rules connected with this mode of treatment, which I pointed out in speaking of hepatitis, apply equally in this case. There is a terrible consequence of mercurial action in the lymphatic temperament with which you should be acquainted, — I allude to the violent and destructive inflammation of the soft parts of the mouth and face, which has got the name of the *mercurial cancrum oris*. An œdematous inflammation of the cheeks, lips, and tongue takes place, and, if not checked, rapidly runs on to extensive ulceration. I have seen one cheek, half of the nose, the lower eyelid, and the opposite angle of the mouth, utterly destroyed, in a case where but five grains of calomel were used. In this case the quantity used was nine grains. I have seen the disease from the use of so small a quantity as a grain and a half of calomel! These facts show that there is a state of the consti-

tution in which a minute dose of calomel may have terrible effects. The same too may arise from the external use of mercury. I recollect the case of a young woman in the Meath Hospital, whose head was rubbed with *one drachm* only of mercurial ointment for the purpose of destroying vermin. She was attacked, and with difficulty saved.

The disease may also come on suddenly in a patient who has been for some time using mercury in considerable doses; but this is the rarest case.

You recognise this disease by the sudden supervention of great swelling of the lips and cheeks, so as to completely alter the expression. The tongue is also swollen. All these parts are hot and tender to pressure. The breath is fœtid, and the internal surface of the mouth excoriated, and often covered here and there with patches of lymph. At other times we have a circumscribed œdematous swelling, occupying the centre of the cheek, which runs on to ulceration; but most commonly the ulceration of the external parts begins at the depending angle of the mouth.

Gentlemen, in a case of this kind, if you are called before ulceration has taken place, I believe you can often save your patient, and prevent destruction of the face. Treat the disease as a violent inflammation. Use repeated leeching, poulticing, and the warm bath. *While you do this, you must keep up your patient's strength by light nourishment and wine.* Apply to the internal ulcerations the mel æruginis, the nitrate of silver, or the chloride of soda. I have now saved many cases by bold and repeated leeching. I remember one case of a man in which ninety leeches were used; he recovered perfectly.

In the treatment of this affection, it is of the utmost consequence to attend to the position of the patient. By keeping him as much as possible upright, or by preventing him leaning constantly on one side, we do much to prevent the occurrence of the ulceration of the angle of the mouth.

As far as I can see, hydrocephalus, when taken in time, is a very manageable disease; and there is only one case in which it is difficult to treat, and that is where the cerebral affection is accompanied by symptoms of gastro-enteric disease. In several cases of hydrocephalus, this complication certainly exists; and you have first symptoms of disease of the digestive tube, and then of the head. Such cases as these are involved in great difficulty, and in their treatment you run the hazard of

falling into a twofold mistake. The first is your acting on the supposition that the disease of the head is only sympathetic, and that it will subside as soon as the abdominal symptoms are removed; the other is occupying your attention exclusively with the head. Now there is one rule with respect to this, which I think will serve to guide you through many difficulties, *and this is, never to neglect the head.* Though you have first an affection of the digestive system, and then of the head, it is better (even though the symptoms of the latter still continue) to pay attention to the head. You can do this at the same time that you are attentive to the digestive organs. Another rule is, that the cases in which the purgative plan does not answer are generally those in which there is primary inflammation of the digestive tube. Dr Cheyne, in speaking of the treatment of hydrocephalus says, that some cases are benefited by purgatives, others not; and that the latter are those in which there is disease of the intestinal canal. In such cases you will not irritate the bowels, or add to the existing inflammation by purgatives. Let the bowels be kept open by enemata, and direct your attention immediately to the head. Children with largely developed heads, and of a strumous diathesis, are very subject to this disease; and I feel convinced that the present rage for the early mental education of children has a strong tendency to produce it in subjects of this description. I believe there are many cases of fatal hydrocephalus, from which the poor victims would have escaped but for the pernicious efforts of the parents to make them literary prodigies. I have observed many cases of this kind among the children of persons who, having been originally situated in an humble sphere, and deprived of the benefits of education, accumulate wealth, and then, feeling in their new condition the want of education, are anxious to communicate it to their offspring; and with that view have them educated with too much care and from too early a period. The child is constantly kept at his books, his little mind is perpetually tasked, a degree of cerebral excitement is kept up, and while he is delighting his gratified parents with the manifestations of a precocious intellect, his health is neglected, and the seeds of disease are insensibly sown. One of the most ordinary consequences of this early application of the mental powers is hydrocephalus. These little creatures, too, have a congenital disposition to disease of the brain, for they have generally large heads. Such cases are examples of the results of an arrest of development. A rela-

tive condition of head exists similar to that which occurs during fœtal life, and this is always accompanied by a remarkable susceptibility to inflammation. This peculiar development of head also produces a precocious state of intellect, which is increased by the pernicious habit of obliging children to study at too early an age. Where you meet with children suffering under these circumstances, you will not discharge your duty properly if you do not point out to the parents the mischievous tendency of their conduct. In such cases as these it may be justly said that ignorance is bliss.

On the Treatment of some diseases of the Genito-Urinary Organs.

On the Treatment of some Diseases of the Genito-Urinary Organs in the Female by Leonard C. McPhail, M. D.; *Lecturer on Obstetrics, Baltimore.*

Woman, owing to the difference of her structure and the peculiar offices she is destined by nature to fulfil, is liable to a great number of affections to which man is an entire stranger. The interruption of the uterine functions almost invariably produces more or less derangement of the general system; and often modifies in a very essential manner, the phenomena of the disease of organs, in no wise, or but remotely connected with those subservient to the purposes of generation and reproduction. The study of those diseases peculiar to woman has occupied my attention for some time. The want of opportunity for *observation* in our own country precluded the possibility of my making much progress in this delicate branch of our art, and induced me to repair to Europe where, more especially in the French capital, I have had numerous occasions to *see* many of the various forms of affection to which woman is subject, and to note the success of the plans of treatment adopted for their cure. I propose, in a series of numbers, to furnish the readers of the Magazine the result of my observations and experience in the treatment of some diseases of the Genito-Urinary apparatus of the female.

Amenorrhœa.
Dysmenorrhœa.
Menorrhagia.
} *Dependent on deranged functional action of the Uterus.*

Amenorrhœa. — The treatment usually pursued for the cure of this affection is, I conceive, one of entirely too gene-

ral a character. M. Lisfranc at the Hôpital de la Pitié of Paris depends almost exclusively upon *local* means; and his success is proverbial. In cases of Emansio-Mensium he usually bleeds to the amount of the ordinary menstrual flux by leeches applied to the *labia* or *perinæum;* and in some cases he has essayed to apply them to the *labia uteri* by means of the speculum; but this last method can only be made use of in the larger French towns, where the manners of the people are *loose*. The application of leeches to the perinæum in the absence of the flux at the menstrual period, will generally succeed in allaying all those unpleasant sensations felt in the head, breast and elsewhere, by young females, produced by this derangement of the uterine function. In many cases, however, it is necessary to empty the bowels, which are sometimes found constipated. This is better done by *enemata* of simple warm water, by virtue of its relaxing quality, than by any other means. Purgatives, I think, are only indicated when there is biliary derangement, and then these should not be of an irritating kind. I object *in toto* to the use of most of the articles classed as *emmenagogues*, especially those of an irritating purgative character; as well as those which act violently upon the kidneys and bladder. I proscribe the use of *alöes*, *savin* and *cantharides*, and in this am supported by the authority of several late writers: and my own experience has been enough to justify me in saying, that *these* are more injurious than otherwise. Where tenderness of the *hypogastrium* is present, the application of opiated, emollient *cataplasms* should be made; and the menstrual flux may, with propriety, be solicited by injections *per vag.* of warm water conjoined with mustard *pediluvia*.* 'Hip-baths,' says Madame Boivin, 'have been found of utility when there has been no sign of uterine engorgement: in cases of turgescence of the womb these are contra-indicated. I have known them to produce a great deal of distress by causing an afflux of blood to parts already in a state of irritation from infarction of their vessels.†'

* ℞. Sinap. Nig. ℥ ii.
Aq. Calfact. q. s.
Ft. Pediluv. (La Pitié.)

† Madame La Chapelle (nièce) and M. M. Hatin, Baudelocque and Lisfranc contend strongly against the use of the *hip-bath* when there is already any turgescence of the vessels of the womb. They report to have seen many cases of inflammation of the organ produced by their use, as also many of *Blenorrhagia*. ‡

There is generally *gastric derangement* attending all irregularities of the menses. Unfortunately for the sufferer these are too often treated by the exhibition of *calomel* with its usual adjuvants *Jalap*, *Rhubarb* and *Aloës;* with the effect of superadding to the menstrual aberration, great irritation, and often active inflammation of the digestive organs. The gastric derangement is, in almost all uterine affections, merely sympathetic, and should be treated mildly: — always bearing in mind that it will mostly disappear so soon as the menstrual affection shall have yielded to treatment. *Emulsions* of the sweet gums, mucilaginous drinks, taken cold, and some of the milder aromatics will be found palatable and beneficial. But I have always found iced water taken in moderate quantities, and the keeping constantly a small piece of ice in the mouth, to be the best to overcome *heart-burn, eructations*, *nausea* and other unpleasant feelings, attending gastric irritation, no matter from what cause.

The period of the first appearance of the menstrual flux is no less a critical period in the life of the female than the one of its final cessation. On the proper natural establishment of this function much depends; and the physician often has it in his power by judicious management to prevent many of those deviations from health, which, when established and permitted to become chronic, lay the groundwork of obstinate and often of incurable complaints. During a few months after the first appearances of menstruation, this function does not observe the same regularity as after, when it has become once established. But at every menstrual period the female, if not regular, is tormented with *flatulence*, *headache*, *flushings of the face*, and *pains in the breast and loins* — with *vicarious hemorrhage* from the nose, lungs, and sometimes from other parts. If these symptoms are observed as *idiopathic*, and are treated as such, without any reference to the menstrual aberration, great errors may be committed, and the irregularities permitted to continue to the great jeopardy of the general health of the individual. Many of the intractable affections of the uterus and its appendages owe their origin entirely to a continued absence of the menses, or to interrupted function; as also do many of the affections of the organs of lactation — between which and the organs of generation such an intimate sympathy exists. The attention of the medical adviser should be constantly directed to the state of the menses, when treating females; and more especially so, when consulted on the part of

budding youth blooming into womanhood. The interference of art is generally not required, unless the irregularity has continued for some time. Hence, unfortunately delays are too long, and the physician is not consulted until the health is already much broken by long suffering. Art can do much towards rendering the menses regular in their appearance. If they do not appear at the expected period, they should be solicited by injections of warm water *per vag. et per anum.* Cloths wrung out in warm water applied to the perinæum — sitting over the steam of bitter herbs* — foot-bathing, &c. Should these fail to establish the flux, half a dozen leeches applied to the perinæum, and their bites suffered to bleed a few minutes, will suffice to remove all unpleasant symptoms attendant on this derangement of the menstrual action. The same may be accomplished by bleeding from the arm to the extent of 4 or 6 oz. *Venesection* when carried to any great extent is injurious: it prevents the appearance of the flow — debilitates and interrupts the general health†. One will be surprised at the good effects of a small bleeding, when the symptoms present would lead him to believe that a profuse blood-letting is indicated. I have seen a patient at her period with the most violent *headache*, *dry-cough*, *pain in the breast and loins*, relieved by a 4 oz. bleeding conjoined with a pediluvium. M. Lisfranc strongly deprecates the too common practice of free venesection in females, more especially for disorders of their menses. He says: 'it carries a notable damage to the whole economy of the woman, and tends to produce and sustain the very effects we are desirous to remove.' He highly approves of general bathing in *tepid* water. In walking with him around the wards of the Hospital of Pitié, I have often seen the good effects of his plan of treatment in Amenorrhœa.

The use of *Ergot* (secale cornutum) in those cases of Amenorrhœa unattended by pains in the loins and in the uterus itself, is followed by the happiest effects: in such cases only are emmenagogues indicated — that is, when there is a want of activity in the uterus. The ergot is preferable to any other medicine in Amenorrhœa as it acts alone upon the genito-urinary organs, without producing, when administered judiciously, any unpleasant effects.‡ The value of this medicine in the treatment of derangement of the menstrual flux is not so

* Hippocrates. † Marshall Hall.

‡ ℞. Secale corn. ʒi. Pulve, et ft. in chart. xx — Three a day in a little syrup or sweetened water — drinking largely of demulcent drinks.

generally known as it ought to be. It is a leading article in the hand of the French and German accoucheurs in the treatment of such affections. It is often used by them to localize the action of other remedies; it possessing like some other articles of the Materia Medica this well ascertained property. I can testify to its marked good effects in various uterine affections.

In *Suppressio Mensium* our treatment must be modified according to the cause of the suppression. There may be *two* kinds of suppression. The one in which the menses, after having been established, are prevented from appearing by causes unconnected with pregnancy: the other, in which the menses having appeared at the regular period are stopped by sudden cold or some bodily or mental emotion * — each admits of a distinct treatment. Our attention in the first should be directed towards the establishing of the flow by gentle solicitations in the form of injections *per vag.;* and if there is a want of action in the uterus, by the exhibition of the spurred rye. Should we be unable by these means to bring on the natural flow, we must apply leeches to the perinæum, or bleed from the arm, as directed in the case of Emansio Mensium. It will almost always be impossible to re-establish the flow during the same period in which it has been *interrupted.* We should then moderate the effects by a small bleeding and revulsive pediluvia, which will generally succeed.

In irritable habits Amenorrhœa is often attended with symptoms of nervous disorder. These must be treated by *opium*, the *fœtid gums* and other *antispasmodic* means. But we must never loose sight of the main object, the re-establishment of the flow. Madame La Chapelle (nièce) assured me that the best means of calming nervous agitation, resulting from suppressed menses as a cause, is a bleeding to the amount of the menstrual flux. She instanced to me the immediate disappearance of hysterics in several women on the breaking out of vicarious hemorrhage.

The consequences of protracted Amenorrhœa will be treated of when we come to speak on *Chlorosis.*

In our next we will take up the treatment of *Dysmenorrhœa.*

* Would it not be better to define the *first* 'Retensio Mensium' and the latter 'Suppressio Mensium' — which more properly it is?

[To the Editors of the Medical Magazine.]

On Drinking Cold Water in Hot Weather.

I notice in your periodical for September 1st, an article on the effects of drinking cold water in hot weather, and although the discussion of this subject at this time may be, meteorologically speaking, somewhat *out of season*, I am induced to submit a few observations upon it to the consideration of your readers. It can hardly be construed into an assumption of superior knowledge on the part of the writer, to say that the prevailing notions on this subject, even among members of the faculty, are, if not erroneous, at least exceedingly indeterminate and vague. The general drift and phraseology of the communication just referred to are sufficiently indicative of this. It would seem to be the opinion of your correspondent, as it appears also to have been of Dr Rush, that death in these cases is the effect of the sudden abstraction of animal heat from the coats of the stomach, at a time when the whole body is exposed to the influences of high atmospherical temperature; or, at least, to make the proposition a little more comprehensive, that death is the effect of the sudden application of cold to the stomach, acting in some inexplicable manner through the medium of this organ, and thus deranging the whole system, and in the worst cases destroying life. The effect of the cold water thus introduced into the stomach has been considered analogous to that which has sometimes been produced by a quick blow on the epigastrium.

As a preliminary to the few remarks which I wish to make on the pathology of this affection, I will here give the history of two cases, the only ones that have come under my notice.

On Wednesday, July 9th, 1834, the weather was excessively hot. There was a bright sun, the air was still and the thermometer in the shade ranged from 94° to 98°. About four o'clock in the afternoon I was called to Patrick McGill, who had been employed during the day in wheeling heavy bales of goods on a barrow. At the time of the attack, and for some time previous to it, he was exerting himself with great energy, tasking his strength to the utmost, in striving to outdo one of his fellow workmen. I found him directly after the attack, which was instantaneous, lying on the ground wholly insensible to what was passing about him. His respiration was not strictly

stertorous, but irregular and noisy; sometimes short, sometimes deep and suspirious, very much like the kind of breathing that frequently accompanies severe cerebral affection in the latter stages of typhus fever. The general surface was warm and red. The face was very much flushed and the head was hot. The pupils were contracted. There were no spasmodic actions of the muscles, but there was a constant irregular tossing about of the body and limbs. The muscles of the jaws were very firmly contracted, with total inability of deglutition. The pulse was full, large, not hard, rather laboring, and its beats about eightyfive in the minute. He had been drinking cold water often and freely during the day. He had also taken distilled spirits at several different times, as he was in the daily habit of doing. There was no evidence that he had taken cold water in any greater quantity immediately before the attack, than he had repeatedly done previously.

A vein in the arm was immediately opened, from which he bled copiously till the pulse was affected, although there was no mitigation in the severity of the general symptoms. In the course of half an hour he was carried home, sinapisms were applied to the feet, and the temporal artery was opened, from which also he bled very freely.

At the expiration of an hour and a half from the attack, in addition to the symptoms already enumerated which had been in no sensible degree modified by the treatment, there occurred at intervals of a few minutes slight convulsive paroxysms of an epileptic form, the eyelids opening, the pupils dilating, with considerable frothing in the mouth. The head of the patient was now supported by the hands of an assistant off the edge of the bed, over a tub, and cold water was poured upon the crown in a full and steady stream from the spout of a common coffee pot, held at an elevation of six or seven feet. During the effusion of the third vessel of water the patient opened his eyes, looked about himself and asked for drink. This was the first indication of returning consciousness. The affusion was continued a little time longer and the whole series of morbid phenomena rapidly disappeared. He was very thirsty for several hours, and cold water in moderate quantities was frequently given him. The next day the tongue was coated, there was muscular debility, and he complained of pain in the head. Rest was enjoined upon him, a dose of Epsom salts was given, and in a few days he was quite well.

While attending to the case now detailed I was called to

Jerry Higgins, a man employed in the same establishment with Mc Gill. Higgins was occupied in the care of a furnace. While engaged in his work he suddenly fell and directly afterwards I found him lying on the ground quite insensible to external impressions. The breathing was quick, irregular and noisy, but not stertorous. There was no jactitation of the body or limbs. He was unable to swallow. The pupils were contracted. The general surface was warm, and the scalp was very hot. The face was rather pale, at any rate not flushed. The pulse was about 80, rather soft and feeble. A vein was opened from which he bled but little. The temporal arteries were also opened though they yielded but a small quantity of blood. He was now carried home, and cold was applied to the head by means of wet cloths. The pulse flagged and he died in about one hour from the time of the attack. An examination of the body was refused.

Now I suppose that the two foregoing cases may be taken as pretty fair specimens of that affection which so often occurs among *hard laboring* people in *very warm* weather, and which by *popular* opinion, and also more or less generally by *professional* opinion has been attributed to the reception into the stomach of cold water at a time when the body is heated by violent muscular exercise, and by a high atmospherical temperature.

What then is the pathological condition upon which the morbid phenomena depend, and what are its causes? The pathological condition is, manifestly, *apoplectic*, and the causes, it seems to me, are to be found in the effects produced on the circulation and through this upon the brain, by violent muscular action under intense external heat, without any reference whatever to the *cold water.*

It is certainly of no small importance that a correct knowledge should be obtained of the nature of this dangerous and not unfrequent affection, since our opinion of its pathology must necessarily exert a controlling influence over our treatment of it. I know very well that the observation of but two cases, and of these during life only, does not constitute an experience sufficiently extensive to justify any very positive conclusions on this point. But if faithfully recorded they may be of some value, even if unsupported by any other and more extended observation and research. In the present instance however, this more extended observation and research are not

wholly wanting, since the opinions very briefly, but I trust explicitly stated in the present article, were advanced by Dr Dickson in a paper on the *Effects of Heat* published in No. VI. of the American Journal of the Medical Sciences.

E. B.

Case of Polypus Uteri.

Communicated by L. M. Yale, M. D.

Mrs J. L. æt. 44, widow — has had two children, the last one fourteen years since — has usually enjoyed very good health and been engaged in very active business. In October, 1831, she applied to me on account of an attack of uterine hemorrhage, attended with pain in the back and region of the uterus. Attacks of the same kind, she had been subject to for nearly a year previous, but they had always occurred at the regular menstrual period. She also had a constant leucorrhea which commenced prior to the hemorrhage, but neither had excited alarm, till the period above named. In November following, with the return of the menses, the hemorrhage returned to an alarming degree; but it was checked in a short time and she began to recover her strength gradually, although she continued to have a constant leucorrhea, and suffered considerably from loss of blood, vertigo, palpitation, &c. In April, 1832, she had recovered sufficiently to ride to Boston, but was there again attacked with a recurrence of the hemorrhage, and lost, as she judged, three or four quarts of blood, in the same number of days; this reduced her considerably, but she recovered from it sufficiently to return home in about three weeks, when, at the recurrence of the menses in May, the hemorrhage again returned with violence, and was not controlled, except by faintness. No remedy that was used seemed to have any effect in restraining it. Acetate of Lead, Sulphuric Acid, cold topical applications, tampon, astringent injections, were successively used without relief.

It should be remarked here, that up to this time she had menstruated regularly in regard to time, and the hemorrhage had occurred only during the period of menstruation, and in consequence of this, I was led to consider it merely a functional derangement; but the obstinacy of the complaint and the little effect that remedies had upon it, led me to suspect the existence of some organic affection. She was now very much re-

duced — the stomach sympathized — frequent retching and vomiting — headache, vertigo, palpitation, pain in the back and sometimes those resembling labor. An examination per vaginam was now had. The mouth of the uterus was found to be dilated to the extent of three quarters of an inch; soft to the touch, and protruding about as much as at the seventh month of pregnancy; — the neck of the uterus was filled with a substance of firm consistence, protruding a little through the os uteri, smooth, not tender to the touch.' Tonics and stimulants were prescribed, and a solution of Nitrate of Silver to be injected into the vagina daily.

June. Stomach irritable — no appetite — occasional vomiting, with all the former symptoms. No hemorrhage, but a constant watery discharge. In July and August there was but slight alteration in her symptoms. Some diarrhœa and much wakefulness for the last month.

September. During this month, she had more appetite, gained some strength, so as to ride half a mile daily. Os uteri more dilated — uterus can be felt two inches above the pubis — and pressure on this part occasions the descent of the tumor half an inch.

In October, there was slight recurrence of the hemorrhage, occasional bearing down pains — appetite small — loss of flesh and strength; countenance very pale.

1833, January. There has been but little alteration in the symptoms since the last date. Has had considerable headache. Some uterine pains with a sense of weight and drawing or sinking in of the sides.

February 13. Has remained comfortable for the last month, with but little pain and no hemorrhage till last evening, when there was a discharge of nearly half a pint. The catemenial discharge has now existed four days and still continues. For six months past this discharge has continued for ten or twelve days at each period. Sleeps but little, appetite sufficient — bowels regular. The largest part of the tumor appears to have descended through the os uteri into the vagina, but it is still high and difficult to reach.

Feb. 25. The hemorrhage which commenced on the 12th, has continued to recur daily ever since, and she thinks she has lost two or three quarts of blood during the time. Now complains some of faintness and throbbing in the head — appetite small — some nausea and retching.

March 11. Today had a recurrence of the hemorrhage in slight degree.

March 12. Finding that her strength was fast wasting from repeated attacks of hemorrhage, and seeing no other means of affording relief, I determined on attempting to enclose the tumor by ligature. On examination, the attachment of the tumor could not be felt, but the body of it was apparently in the vagina. The uterus could not now be felt above the pubis, as it could before the tumor had descended so low. Being provided with a double canula, and assisted by Doctor Fisher, of Edgartown, I passed a ligature above all the tumor that was within the vagina, and enclosed the neck of it. On drawing the ligature tight no pain was complained of. A considerable hemorrhage followed the operation and continued for some hours, till she became faint.

13th. Slept but little — considerable pain in the small of the back, but thinks it the same that she is subject to at her menstrual period. Some discharge from the vagina, of a bloody fluid, but whether it be the menstrual discharge or an oozing from the tumor, I am unable to determine. Pulse eightyfour, sufficiently full — some appetite — looks very pale.

16th. Continues to have some discharge, which is quite offensive — appetite small — complains of canker in the mouth which troubles her in eating. Pulse ninetysix, small, sleeps but little — feels very weak.

17th. Mouth aphthous — has chills — some thirst — no appetite — pulse one hundred and eight, quick, sharp — pain in back — inclines to sleep constantly, but groans and wakes frequently very much distressed, — discharge from vagina, water with some purulent matter, very fœtid.

18th. Tumor appears to be much larger than when the ligature was applied — not tender to the touch, but the surrounding parts very tender — complains of a drawing pain in the back when the ligature is tightened — pulse one hundred and eight — some flushing of the face — head feels dull, but no pain. Sleeps constantly, frequently rousing up distressed.

19th. Slept most of night, and sleep more refreshing. Some diarrhœa, complains of some pain and soreness in abdomen a little below the umbilicus, evacuations very offensive, has vomited a little bilious matter once or twice. Takes brandy and water freely — soda draughts.

20th. Pulse 120, small, — she feels very weak, some griping pain in the bowels, two dejections this morning fœtid, no vomiting; at 12 M. the ligature came away and the tumor was removed with some difficulty with the aid of the crotchet,

its shape was roundish oblong, and weighed seven ounces avoirdupois — firm to the touch, though very vascular, no hemorrhage followed its removal.

21st. — Some pain and soreness in pubic region — nausea and retching — 4 dejections — inclines to sleep, and is a little incoherent — on waking, does not like to take drinks of any kind, but takes a little wine — pulse 108, to 116, opiates sufficient to control diarrhœa, and solution of nitrate of silver for injections per vaginam.

23d. Continues much as before, expectorates freely a thick viscid mucus. No discharge from the vagina except a little purulent matter on using the injections, — somewhat incoherent.

From this time there was a gradual amendment of her symptoms under the use of tonics and stimulants, with the occasional use of opiates. She continued to expectorate freely, or rather in very large quantities, a thick, viscid mucus, for a considerable time. She also was very much afflicted with globus hystericus for two or three weeks, and complained for the same length of time of pain and soreness in the pubic region, but these symptoms so far subsided, that by the last of April she was able to ride five or six miles a day, had a good appetite and slept well.

June 28, 1833, I find the following note. For two months after the removal of the tumor, there was no discharge of any kind from the vagina. She then menstruated, and since has had a constant watery discharge with occasional hemorrhage in a slight degree. Countenance chlorotic, pain in head and back, vertigo, sense of throbbing all over, especially in head, examination per vaginam, os tincæ dilated half an inch, and a firmly resisting tumor a little protruding.

Sept. 1834. Soon after the above observations were made, all unfavorable symptoms disappeared. She soon regained her strength, and for the last year she has appeared to enjoy perfect health.

Holmes' Hole, Sept. 18, 1834.

To the above case from Dr Yale, may be added one extracted from the Record Book of the Boston Society for Medical Improvement.

'Dr S. reported a case of Polypus of the womb occurring in the summer of 1830 in a woman about fifty years of age. She had had profuse uterine hemorrhages at distant intervals which had

previously been controlled by ordinary means, but in the last attack the most active treatment was employed without relief. On examining per vaginam, which till then had been obstinately refused, a polypus was discovered, both by touch and by speculum, more than half as large as the fist, externally firm, and causing so much uneasiness on pressure as to create some suspicion of its being malignant. A surgeon was consulted, who applied a ligature around the tumor by means of the double canula. Within twentyfour hours there were fœtid discharges from the vagina — in five or six days the instrument came away, but no polypus; nor did it appear that any mass, such as the tumor would form was ever discharged. The patient was very feeble for the time, but since then has done perfectly well. The hemorrhages ceased — the os uteri recovered itself, and the uterus, which before was enlarged, recovered its natural size.'

It would seem, according to Dr Gooch's observations, that polypi do not always come away entire — that when a portion of the stalk of a polypus is left behind it gradually sloughs away, or at least, that the leaving behind of a portion, does not lead to the return of the disease.

Morison and St John Long.

Morison may with propriety be styled the sovereign quack of the age. For the last six or eight years the 'Hygeian Medicines' have been in almost universal repute in England and America. St John Long in England, and Thomson in America have had numerous partizans; but partly on account of the sufferings which are inseparable from their treatment, and partly because the personal attendance of the master or his disciple is requisite, their practice has not, and will not become fashionable. The former indeed, has finished his career, and unless his few initiated admirers shall possess the shrewdness and tact which he possessed, a thing quite unlikely, we may hope that the charm which drew around him so many men of high degree to submit to his cruel lotion, may be broken, and that an end of his dynasty is at hand. He died July 4th, in consequence of the rupture of a blood vessel which occurred about two years ago, and the same authority adds, that this was not one of the diseases which he professed to cure. His

notions of diseases and their treatment, which we extract from the English Journal were as follows.

'The primary cause of disease,' he said, 'consists of a morbid fluid inherent in the system, and incident to all the human race.' To the quantity of this morbific humor, more or less, he attributed the common origin of all diseases. And, in uniformity with the operations of nature, as exhibited in the earliest outbreak of this treacherous enemy in small pox, his practice consisted in producing a copious discharge of the morbific humors, by 'the attractive powers of his remedies acting as if a new gland had been added to the system.' His embrocation had, he asserted, an attractive power over the disease, and produced no effect on a healthy part; and, of course, its power of healing the sore originally produced by it, when there was no more disease in the part, was duly asserted and authenticated. In one recorded case, a young boy suffered from a rotten tooth, which St John Long very prudently advised should be extracted. The tender, confiding mother objected, and appealed to the sovereign lotion. It was applied with faith, and the stump rejected its morbific humor, and all pain ceased. We have even heard faithful witnesses record instances of like extraordinary power of the lotion upon inanimate matter. In one case a handsome Turkey carpet was soiled by the upsetting of an ink bottle; the lotion was applied, and lo! the inky stain evaporated, and the pristine colors of the carpet revived, untarnished!

This celebrated rubbing mixture consisted mainly of spirits of turpentine. It was oily and whitish;—at least, such was the lotion *after* the celebrated catastrophes.*

A large extent of surface was usually rubbed—the whole back or breast, or down the whole leg—the friction was kept up for a considerable time.

St John Long was dark complexioned, tall, and slender. His manners were plain if not vulgar. He seemed on terms of perfect equality with his titled visitors, and bore with meekness the deference and adulation of his admirers.'

But to return to Morison. It appears that the Hygeists, as he and his followers are pleased to style themselves, have lately been made to swallow some bitter pills in England. In one instance a surgeon recovered £500 damages of the proprietors of a paper devoted to the puffing of Morison's quack-

* The deaths of Miss Cashin and Mr Lloyd.

ery, for publishing 'a dreadful instance of cruelty and maltreatment, practised on a poor child, by one of the Faculty.' And still later, a verdict of man-slaughter was returned against one of his agents, for having hastened the death of a young man, by large and repeated doses of Morison's pills, during an attack of small-pox. This is a serious matter, and we would that it might have as rational an effect in this country, as it is said to have had abroad. 'The whole firm of pill rollers is in alarm at the probable effects of this untoward event. The fears and apprehensions of many persons are so unaccountably worked upon, that they would not take another dose of Morison's pills, though they have before reaped the greatest benefit from them.' But there is something amusing in the following extracts of Morison's manifesto on the occasion, as well as serious and humiliating, in view of the presumption to which a pretender may arrive, and the arts to which rational man will stoop, and by which he will be led away.

PEOPLE OF ENGLAND!

'An extraordinary case has taken place at York. A young man, ill of malignant small-pox, has died — *although* he had been treated by Morison's Universal Medicine, of the British College of Health. But, mark ye! not left to their medicines only, as he should have been; his friends and relations becoming impatient, a doctor was called in, who administered some drugs and stimulants; after which the patient soon sunk. * * *

'The first consideration is, in this case, whether the patient died from the effects of Morison's pills, or from the drugs administered by the doctor. He might have appeared very ill—naturally to be supposed, under such a malignant disease, and the operation of the medicine; but it is well known to all hygeists, that patients soon rally from such a state, if let alone, and nothing done to interrupt the operation of nature; and all stimulants, opiates, chemical and mineral preparations, are well known to hygeists to have that effect, namely, to check nature in her salutary crisis. If this doctor found the patient so ill, why did he not leave him alone, and decline prescribing for him at all? for, left as the case now is, Omniscience alone can discover the true cause of death — not *infallible* [*sic*] man.

'The second consideration is, the evidence of the doctor; who, from the analyzation, declared the pills a composition of

various ingredients, of which gamboge is one. Experience and practice are superior to theory, or individual opinion. Now experience and practice have shown, that those persons who make use of Morison's pills in *largest doses, and the longer persevered with, have invariably reaped most benefit.* Does this look like deleterious and poisonous?

'Divinity, politics, and medicine, are the natural sciences which most occupy mankind. In religion, have we not had the great reform from the Church of Rome, led on by Luther, which has branched into innumerable sects? In politics, how various the opinions of mankind? In medicine alone, or the treatment of one's own body, a monstrous monopoly, or despotism, is erected, which deprives every one of the liberty of treating their own bodies as they choose, or to advise their friends how to do so. We come into this world slaves to the doctors, and we cannot die without them, but by subjecting our friends and advisers to a criminal prosecution. * * *

'People of England! — the Hygeian agent at York has been found guilty of accelerating the death of his patient, and sentenced to six months' imprisonment! * * *

'But the Hygeists are bound to announce to you, that it is their belief that the young man who died at York did not take doses sufficiently large and energetic to meet the urgency of the case, and carry downwards the small-pox inflammation; and that if Morison's pills do not cure, no other medicine on earth will; and infallibility only belongs to One — to God! *

'From the extensive consumption of Morison's pills, an easy calculation may be made that a million of persons, at least, make use of them annually; and this they may find corroborated by inquiring at the Stamp-office, Somerset-House.

'The Hygeists have repeatedly given proof of curing those given over by the doctors; but failure always attends doctors being called in after Hygeists, and in such cases blame is laid to the latter.'

'*British College of Health, 25th July*, 1834.'

In the course of the trial, the following analysis was given of the famous Hygeian pills, which is considered as showing with sufficient accuracy all their active ingredients, and of course their probable effect.

'The pills No. 1, averaged two and a quarter grains, each pill, and were composed of aloes and colocynth together, one grain, but in what proportion he could not ascertain; gamboge

half a grain, and cream of tartar three quarters of a grain. There was also a very small portion of ginger. The pills No. 2, averaged three grains each, and contained aloes and colocynth one grain, gamboge one grain and a half, cream of tartar half a grain, and ginger as before.'

Now there are numerous cases to which all will agree that pills of this kind, are nicely adapted — such are in fact prescribed every day. To no class of people are they likely to be more serviceable than to such as are constantly ailing — who are always sending for the doctor rather from a love of telling their infirmities, than from any intention of following any extended course of medicine for their cure, because forsooth they do not suffer enough to make it worth their while — such persons, in short, as doctors can never cure. Among them it is, that we hear of the most wonderful cures from the Hygeian Pills, and from them too it is that the doctors have most to dread the defamation of their skill and art. They are also well suited for many complaints arising from sedentary habits, and for which the regular physician would prescribe a course not materially differing from Morison's directions, excepting that he would not like him and sundry Irishmen of more honesty, suppose that because a small dose would do a little good, a very large one would do a great deal. But what regular and principled practitioner has such an ascendency over his patients, that he could induce them, while able to be about their ordinary avocations, to take regularly two or three hundred pills? Is it not oftener the case that if you propose a course of twenty or thirty pills, the patient judges you devoid of skill, and if you cannot cure him with three or four doses of medicine, he gives up his cure in despair, or seeks relief elsewhere.

We leave this subject for the present, though there are Thompsons, and Thompsonians, and Stewarts, and gifted ladies, and Indian doctors, in the midst of us who deserve our notice. We hope that the instances given of a failure of the 'Universal Remedy,' and the specimen of the nauseous pretension of the man who compounds the pills on which they so much rely, may have some effect in leading his admirers to stop and reflect ere they encourage them farther.

G.

Intelligence.

In acknowledging the receipt of the 'North American Archives of Medical and Surgical Sciences,' we have to announce the appearance of still another depository of the experience and opinions of American practitioners. We welcome it as such, believing that the greater the facilities, the greater will be the contributions, and the greater the demand for us all. It is in fact, however, merely a new Series of the Baltimore Medical and Surgical Journal, in a monthly form, conducted by the same Editor, Professor Geddings of Baltimore. We trust, however, that we shall still receive for the Magazine the occasional communications from the able contributors to the Archives, which we were encouraged to expect. We have only room at present to extract the following paragraph by the Editor.

'*Ointment to allay the irritation of Hemorrhoidal Tumors.* So much suffering is experienced from the incessant irritation of hemorrhoidal tumors, that every means capable of affording relief under such circumstances, must prove acceptable to the profession. I have used an ointment similar to the following, with the most happy effects, and in a great number of cases:

℞ Pulv. Carb. Plumbi. ʒ ss.
Sulph. Morph. gr. xv.
Unguent. Stramon. ʒ i.
Ol. Olivar. qs. M. ft. unguent. part. applicand.

Powdered opium, to the amount of a drachm, may be substituted for the morphia, and if the dry white lead is not at hand, that which is ground in oil, for the use of painters, may be advantageously substituted. Sometimes a drachm of powdered galls may be added.'

Being jealous for the honor of our own professors and teachers, we are sorry to see, that Dr Smith, in his article on Staphyloraphy, while he notices the expedients of other American Surgeons, does not allude to the cases of Dr Warren published in the American Journal of Medical Sciences in 1826, where he will find a method, and figures of an instrument, similar to those employed by himself. His instrument is indeed 'simplified' so far as regards its eye, but we do not see that it is an improvement, inasmuch as a hook or forceps must be used in both cases to draw the ligature out, after it is disengaged from the needle. Dr Warren has also published a case n the Medical Magazine, vol. I. — p. 101.

Boston Dispensary. We give an abstract from the returns of the visiting Physician, for the year ending Sept. 30, 1834, hoping hereafter to be able to give a more detailed Report.

Whole number of cases	2242
Cured	1930
Relieved	79
Under treatment	70
Removed	59
Dismissed	21
Died	77
Incurable	15
Births	134

COLLECTANEA.

Bushnan on the Mode of Action and Combination of Medicines. — The notions of the ancients with respect to the mode of action of medicines are unworthy of being remembered, except as examples of the absurdities into which men are liable to be betrayed by a close adherence to favorite systems. It had been established that of four elements, each distinguished by a certain essential property, as dryness, moisture, coldness, and heat, everything in nature was composed; that of certain definite combinations of these elements were formed the four principal fluids of the body; and that a preternatural local accumulation of one or other of these constituted disease in general. Now, in repairing this loss of balance in any part of the fluids, attended of course by their essential properties, it followed that substances must act either by abstracting such properties as were superabundant, or by supplying such as were deficient; and hence arose the hypothesis that every medicinal substance which was a remedy for dryness was moist, for moisture dry, and so forth; and it might be either the one or the other, and at the same time either cold or hot, and every one of all these in either the first, second, third or fourth degree. Moreover it was the leading or cardinal property of the medicine which determined its sensible operation; emetics, for instance, going upwards because they were hot, seeing that it was the nature of heat to ascend, and purgatives downwards because they were cold, each attracting forth with it such humors as were most allied to itself.

These doctrines, after the revival of literature, gave way to views respecting the action of medicines, in general, either strictly

chemical, or exclusively mechanical, the living body being spoken of as an inert mass, and medicines being described as operating each in its own way, either according to its particular affinities, or, as they were then called, sympathies or antipathies, on the one hand, or, according to its bulk, or the size and form of its particles, on the other; and it was not till after Hoffman had shewn that the causes of diseases operated always on the nervous system alone, that the action of medicines also began to be referred to the same system. Still, however, much of the old chemical and mechanical leaven continued to prevail in the common hypotheses on this subject; and this equally, whether a medicine were brought into immediate contact with the organs affected, or reached them by means of the blood, which for a long time seemed to be the only two conceivable methods by which it could effect them. Thus a common explanation of the salivation produced by mercury was that the medicine, taken up by the blood, passed directly upwards, owing to its great weight, which disposed it to preserve a straight line as transmitted by the heart; or that it did so by its admixture with the blood, which was thus so far attenuated as to be strained through the pores of the salivary glands like so many sieves, which was the explanation of Van Swieten; or that it operated by combining with the supposed ammoniacal salts of the blood, and thus attenuating it, as supposed by Cullen: or lastly, that it passed off by the salivary glands, because the secretion of the kidneys, containing phosphoric acid, which forms with mercury an insoluble compound, refused to transmit it, which was the hypothesis of Murray. The action of mercury also in curing lues venerea was generally represented as that of neutralizing the supposed poison in the blood. In like manner, a common explanation of the effects of astringents was, that they increased the cohesion of the fibres of the parts to which they were applied by a species of tanning; of that of refrigerants, that they produced cold in proportion to the rapidity with which they were dissolved, owing to their increased capacity for caloric; of that of iron as a deobstruent, that, being seven times heavier than vegetables, it was seven times better adapted to force its way through any obstructions; and of that of antispasmodics, that, operating upon the heart as a simple stimulus, they produce so increased a flow of blood through the whole body, that the local congestions, upon which spasm was supposed to depend, were thereby, as it were, washed away! When a medicine was neither directly applied to the organ upon which it acted, nor could be conveniently supposed to be taken up by the blood, it was either stoutly denied that it possessed the power attributed to it, or was conceived to operate by contiguity; and it was upon the principle of the contiguity of the heart and stomach that the effects of an-

tispasmodics just mentioned, of that of the lungs and stomach, that those of expectorants, and of that of the uterus and rectum, that those of emmenagogues, were generally explained. At other times, however, still greater ingenuity was called forth; as inscribing the effects of local sialogogues to the compression of the salivary glands during their mastication, and those of demulcents to their smearing the surface of the larynx during their passage into the stomach, so that, the frequency of the cough being thus diminished, more time was allowed for the inspissation of the secreted mucilage; and it is only very lately that the effects of those purgatives which operate chiefly on the small intestines have been attributed to their more rapid solution, and those of such as operate chiefly on the large intestines, to their more tardy solution on these organs.

But how extremely vague and inconsistent most of these notions are, and how irreconcileable some of them are to the fact, that certain medicines operate, for the most part, on a certain organ, and in a certain manner, by whatever avenue and in whatever form they are introduced, must be abundantly obvious. The luminous doctrines of recent pathologists respecting the nature of those changes which constitute disease, aided by those of Bordeu with respect to specific irritabilities, and by the general observation of the immense extent of sympathies, by which certain irritations of almost any one part may be conveyed to almost any other, have introduced in general much juster views of the action of medicines in curing diseases; and, though the experiments of Magendie, Brodie, Orfila, Christison, and others, have rendered it probable that many, if not all medicines, as well as poisons, *may* be taken up by the blood, and thus indirectly produce their effects, such a circuitous mode of action seems to be in general by no means more essential to the action of any medicine than to that of any exciting cause of disease. As a matter of curiosity it may be observed, that Dr Paris enumerates, in capital letters, four 'distinct and different modes' in which he imagines medicines may act: first, by 'actual contact,' including the conveyance of the matter by either the veins or lymphiferous and chyliferous vessels, and whether received by absorption or by a wound, both which however he calls absorption; secondly, by 'an impulse conveyed by the instrumentality of the nerves; thirdly, by 'the sympathetic control exerted by the stomach on distant parts;' and, fourthly, by 'the operation of contiguous sympathy'. But, to say nothing of these modes being unquestionably resolvable into the action of medicines upon the nervous system alone, if in the two last modes they do not produce 'impulses,' and these be not conveyed 'by the instrumentality of the nerves,' it would be gratifying to know what they *do* produce, and how their action *is* conveyed; and if they be in both respects

similar, it would be satisfactory to know what was the use of enumerating them as modes 'distinct and different' from the second and from one another. But this arrangement of the common modes of action of medicines in general, is nothing to what Dr Paris has attempted to establish with respect to that of each particular description of those medicines, the sensible effects of which are the same, arranging the individuals upon this airy basis into classes, orders, genera, and species, with as much precision as if we really knew anything at all about the matter, and as if all such speculations, were not, as he himself calls some of the theories of his predecessors, 'philosophical webs which ingenuity has woven for us, the device of which is beautiful, but the fabric too frail to endure the touch.'

It must be sufficiently obvious to every reflecting man that the present state of science does not justify us in affecting to arrange medicines, any more than exciting causes of disease, according to their modes of action; and it will be well if the judicious remarks of M. Cap and others, recently made on this subject, put a stop, perhaps for many years to come, to all attempts of the kind.

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Combination of Medicines. — Medicines, in order to adapt them to the various methods in which they are administered, are prepared, either separately or conjointly, in various forms, solid and liquid; but in prescribing compound medicines, it is proper continually to keep in mind that the properties of the compound are by no means always the mean of the properties of the ingredients, but that while sometimes these latter properties are corrected or neutralized by such combinations, at others they are considerably increased, and at others entirely new properties are superadded. It is sufficiently well known that two or more medicines of the same description given in combination frequently produce a much greater effect than the same dose of each individually would have done; and the influence exerted by one class of medicines upon those of a different character, not only generally but individually, so infinitely varied, that it is almost impossible to say, *a priori*, what particular indications any such compound medicine is calculated to fulfil. It hence follows that we should be extremely cautious in excluding any medicine, however farraginous, the efficacy of which is supported by experience; and perhaps the old propensity for excessive complication in medical prescriptions, and for a vast choice of them, was not more reprehensible than is the modern one for excessive simplification and paucity. We know nothing of the specific properties of any medicine, whether simple or compound, but by its results; and we are no more justified in concluding that any composition is inadequate to effect the object for which

it is administered, because its ingredients are respectively inert, than we should be in denying the violently explosive effect of gunpowder, because neither carbon, sulphur, or nitrate of potash, are severally possessed of that property. Nor is it unreasonable to suppose that a very slight variation of the ingredients of any compound medicine, or in their proportions, may sometimes make a considerable difference in its action. How can we tell, for instance, what new chemical compounds result from the mixture of ipecacuanha, opium, and sulphate of potass, in Dover's powder; or how the emetin, meconate of morphia, salt of potass, &c, mutually affect each other; and, if we cannot do so with respect to the compounds formed by artificially mixing different roots, gum resins, and salts together, still less can we do so with respect to those roots and gum resins themselves, composed as they are of numerous principles put together by the hand of nature; and this reflection should make us very jealous of rejecting certain of these principles, in the presumption that they are inert, and of relying upon others, in the presumption that they alone are active. The ridicule thrown upon multifarious medicinal prescriptions by Pliny among the ancients, and by Montaigne among the moderns, is perhaps deserved; and it is probably true that 'one might as well,' as Dr Baynard remarks, 'prescribe the powder of an old-fashioned bedpost as some of the receipts of ancient authors;' but it is to be feared that we have gone, or at least are going, too far at present on the simplifying system: 'Præstat,' says Cicero, 'copiâ quam penuriâ premi.' If Nicolaus Myrepsis has admitted into his work too many compound medicines, the number of which is not very far short of three thousand, and if Dr Huxham was too fond of a complication of numerous ingredients in his prescriptions, which sometimes contained, it is said, not fewer than four hundred substances, it may be doubted whether we have not recently gone into the opposite extreme. The three British Pharmacopœias together do not contain in the present day more than fifty distinct compound medicines; but he who reflects as well on the endless diversities in the idiosyncrasies of the human body, as on the more or less specific action of every medicine, simple as well as compound, although he may not, like Van Mons, sigh for the restoration 'to their primitive state of all those *bizarres* receipts whose credit time has spared,' will yet certainly regret that the '*novæ vires mixturâ variorum*' of Gaubius, the new virtues of compounds, (which, as supposed by Dr Ferriar, are analogous to the harmony of colors and of sounds,) the '*tertium quid*' of Shearman, or the adjective as well as substantive powers of Paris, should be sacrificed to a fastidious science, and that any compound medicine of acknowledged efficacy should ever be wantonly expunged and voted inert, because we cannot easily explain why it should be otherwise. — *Med. Quar. Rev.*

'*Blackley on the Cause of the Pulse being affected by the Position of the Body.* — After stating that Dr M'Donnell of Belfast, was the first who noticed the difference of the pulse in the perpendicular and horizontal postures, and mentioned this fact to Professor Thomson, of Edinburgh, who acknowledged it in his work on Inflammation, Mr B. then extracts freely from the admirable papers of Professor Graves, in the Dublin Hospital Reports of 1830, which, he properly observes, "for closeness of observation, and accuracy of experiment, are no less interesting to the physiologist than to the medical practitioner." The learned and able Professor declined to advance a plausible conjecture as to the reason why change of position affected the frequency of the pulse; and Mr Blackley undertakes to solve the difficulty, with what success our readers must determine. He commences with these words: —

'I believe it will be readily conceded, that the action of the heart in a strong and healthy individual, while in a state of rest, is uniform and equal, that it is possessed of a power sufficient to expel a certain quantity of blood at each contraction of the left ventricle, which power is necessary to overcome the obstacles presented to the egress of the blood.

'Let us suppose, for instance, that the heart of a healthy man in the erect posture beats sixty times in a minute, and at each beat expels one ounce of blood, sixty ounces per minute will be of course expelled; but if the *power* of the heart be increased or diminished, we must expect a corresponding alteration in the number of beats. Thus, if the power be *increased* one-tenth, it will require but fiftyfour beats to expel sixty ounces in a minute; but if it be diminished one-tenth, it will require sixtysix beats.

'To this variation of power in the heart are the phenomena of which we speak attributable, or rather I should say, *the variation of resistance to the heart*, which comes to the same thing. A question may here be asked, namely, 'can you prove that the heart discharges a greater quantity of blood at one time than another, or that the left ventricle does not at each contraction expel the entire of its contents?'

'I am fully aware that the general opinion is opposed to mine; indeed, actual experiment would seem to be against me, for it has been affirmed, that, on inserting the finger into the left ventricle of a recent heart, it contracts through its *whole extent;* nevertheless, I think I can prove the reverse, from the anatomy and mechanical construction of the heart itself.

'1st. There are no muscular fibres going from the substance of the left ventricle to be inserted into the opposite edges of the valves, or above them into the aorta; therefore the space immediately inferior to the valves cannot be compressed.

'2dly. We never find the left ventricle perfectly closed after death, even though it should be at the time that rigidity of the muscular fibre prevails.

'3dly. If the valves had no support, as by a certain quantity of blood under them, to act as a counter pressure, they would be liable to injury from the superincumbent mass of blood in the aorta.

'4thly. A vacuum being formed by the expansion of the ventricle, the valves would be drawn downwards with considerable force to fill it up, and thus an additional weight be unnecessarily imposed on them.

'Lastly. In a very rapid pulse, say 160, we can scarcely conceive the sides of the left ventricle to be closely approximated through their whole extent at each pulsation, and separated again, the usual quantity of blood as in health being expelled at each contraction. But we can readily admit that such a number of palpitations may be effected, the ventricle contracting but slightly at each beat; or a very small quantity of blood may be contained in the ventricle at each contraction, and thus supersede the necessity of the ventricle being much dilated; and we may observe, that in those cases where the pulse is so frequent as I have mentioned, it is never full and strong, but, on the contrary, weak and thready, evidently proving that a very small quantity of blood indeed is forwarded at each contraction of the ventricles.

'To resume. Let us consider the relative force of resistance to the heart's action in the erect and horizontal positions of the body. In the former we have the column of blood in the arch of the aorta assisted by that in the carotids pressing on the semi-lunar valves, and opposing the egress of blood from the left ventricle. Next, we find that the arteries being all full, a considerable *vis a tergo* is required to force on the blood which they contain, especially through the carotids, where it must be driven upwards. But by far the greatest obstacle to the action of the left ventricle, and that which is the chief cause of the non-permanency of the pulse, is presented by the veins; if the arteries require the *vis a tergo*, the veins require it in a much greater degree, not only from the nature of their structure, which is inelastic, but that their contents, contrary to the laws of gravitation, must for the most part be forced directly upwards to the heart.

'In the horizontal position those obstacles are lessened or removed; the blood in the carotids and arch of the aorta does not press with such force upon the valves, but chiefly the *veins*, namely, all those below the heart, being placed in the most favorable position for *spontaneously* returning their contents, remove an immense obstacle to the egress of blood from the left

ventricle. Hence it follows, that less resistance being opposed to the heart in the horizontal position, and the same power exerted, a greater quantity of blood is propelled at a time, and consequently the number of pulsations necessary to transmit the same quantity in a given time in the erect posture diminished.

'The frequency of pulsation then is in a direct ratio to the obstacles presented to the heart's action, whether those be mechanical or arising from debility of the heart itself.

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'Very many practical results and inquiries are deducible from the foregoing observations, not the least useful of which would be the relative degree of hypertrophy induced by the various morbid conditions of the valves; and also the propriety of lessening the mass of the circulation, and removing the resistance to the heart by observing the horizontal posture, in hypertrophy as a primary and uncomplicated disease.

'It has been observed, that the greatest variety in the frequency of the pulse on change of posture, occurs in persons laboring under fever, or debilitated in consequnce of that or any other cause, amounting in some cases to so a great difference as even fifty between the erect and horizontal positions, and this we might expect on considering the structure of which the heart is composed, and the purposes it serves.

'It is a muscular organ, and participates with the other muscles of the body in the general debility of the frame in sickness; not being able to overcome the obstacles presented to the egress of the blood in the erect posture, in as few pulsations as in the horizontal, it is forced to contract the more frequently in order to transmit the same quantity of blood in a given time as in the latter position, at least it makes an effort to do so, and this greater variation is therefore a good diagnostic sign of the general debility of the patient, and *vice versá;* of course when the patient lies down the pulse falls to its former standard, the obstacle which caused its increased action being removed; in other words the veins now empty themselves *spontaneously*, instead of requiring the *vis a tergo* from the heart to propel the blood through them, consequently the resistance to the left ventricle is lessened. It sometimes, however, happens, that the pulse does *not* fall to its former standard on the person lying down, and the cause is interesting.

'On assuming the erect posture from the horizontal (when much debilitated,) the heart is affected in two ways; first, by the irritation of an unusual stimulus; secondly, the actual obstacle to the return of the venous blood; where the weakness is not to a great extent, it becomes accustomed to the irritation, and consequently after some minutes falls a few beats, but still remains more frequent than in the horizontal posture, being affected by the latter obstacle, the non-return of the venous blood. It may,

however, occur, that the irritation once induced may continue, and the increased action of the heart be thus kept up, even after the patient lies down, and this is a good diagnostic sign, as it indicates excessive weakness or irritability. It has been observed by Dr Graves, that in some persons the increase of frequency in the pulse is greater between the horizontal and sitting postures, than between the latter and the erect, while in others the contrary takes place, so that generally the frequency in the sitting posture may be taken as a mean; this is perfectly correct, and agrees fully with the theory I have advanced; for the femoral vein in the sitting posture is horizontal, and the weight of the column of blood from the feet to the head is broken, consequently the resistance to the left ventricle much diminished. In like manner we may find, that if we now raise the legs to a level with the thighs, we shall have a further retardation of the pulse by from two to four beats; this, however, will depend much on the age and strength of the individual, and on the healthy condition of the lower extremities in general, and the veins of those parts in particular; thus, where the limbs are anasarcous, or the veins varicose, we may expect a greater modification of the pulse in this position than where the legs are pending, while in a strong and healthy young person, little or no difference is at times to be observed whether the legs are perpendicular or horizontal.' — *Dublin Journal.*

Cause of the want of speech in Animals. — I have been asked, says Sir Charles Bell, by men of the first education and talents, whether anything really deficient had been discovered in the organs of voice in the ourang outang to prevent him from speaking. The reader will give me leave to place this matter correctly before him. In speaking, there is first required a certain force of expired air, or an action of the whole muscles of respiration; in the second place, the vocal chords, in the top of the wind-pipe, must be drawn into accordance by their muscles, else no vibration will take place and no sound issue; thirdly, the open passages of the throat must be expanded, contracted or extended by their numerous muscles, in correspondence with the condition of the vocal chords or glottis; and these must all sympathize before even a simple sound is produced. But to articulate that sound so that it may become a part of a conventional language, there must be added an action of the pharynx, of the palate, of the tongue and lips. The exquisite organization for all this is not visible in the organs of voice as they are called; it is to be found in the nerves which combine all these various parts in one simultaneous act. The meshes of a spider's web, or the cordage of a man of war, are

few and simple compared with the concealed filaments of nerves which move these parts; and if but one be wanting, or its tone or action be disturbed in the slightest degree, every one knows how a man will stand with his mouth open, twisting his tongue and lips in vain attempts to utter a word.

It will now appear, that there must be distinct lines of association suited to the organs of voice — different to combine them in the bark of a dog, in the neighing of a horse, or in the shrill whistle of the ape. That there are wide distinctions in the structure of the different classes of animals is most certain; but independently of those which are apparent, there are secret and minute varieties in the associating chords. The ape, therefore, does not articulate — first, because the organs are not perfect to this end. Secondly, because the nerves do not associate their organs in that variety of action which is necessary to speech. And lastly, were all the exterior apparatus perfect, there is no impulse to that act of speaking.

Now I hope it appears from this enumeration of parts, that the main difference lies in the internal faculty or propensity. As soon as a child can distinguish and admire, then are its features in action; its voice begins to be modified into a variety of sounds; these are taken up and repeated by the nurse, and already a sort of convention is established between them. We cannot, therefore doubt that a propensity is created in correspondence with the outward organs, without which they would be useless appendages. The aptness of the instrument or internal organ will undoubtedly improve the faculty — just as we find that giving freedom to the expression of passion adds fire to the emotion of the mind.

Curious case of Suicide. — Dr Heyfelder, in a tract on self-murder lately published, gives an account of several curious attempts made by persons on their own lives. Among them is a case of a woman, who tried to accomplish her purpose by the application of 200 leeches; also of another, who exposed herself to swarms of bees; and an apothecary beat in his own brains with a pestle. But one of the most original modes of suicide among them is the following: — A builder, who was chagrined by the treatment he received from his employers, resolved to put himself to death. He wrote a letter, expressing his determination, and then hurried to a steep part of the high road, where vehicles of all sorts were obliged to put on a drag in the descent. He waited here till a heavily-loaded wagon reached the spot, when, with the fury of a maniac, he seized hold of one of the wheels that was not locked, and applying his body to the circumference, was presently crushed and ground as under a mill-stone. — *Medicinische Zeitung.*

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"Itaque ad experimentiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

M. DUPUYTREN ON DISLOCATIONS OF THE SHOULDER.

THE following Lecture contains an excellent summary of Surgical doctrine and practice, in relation to the various, and often complicated, injuries of the shoulder joint. Few gentlemen in the profession have escaped the perplexity attending some of these cases and the difficulty of their treatment. For, although this articulation, as a whole, is capable of yielding to adverse forces, and so escapes many derangements, which the violences to which it is exposed would otherwise occasion, yet, the extremity to which it belongs is put to such various, and often in their defensive employment, to such unnatural and violent actions and impulses, that the ingenious safeguards of nature often fail, and the surgeon finds all the resources of his art in requisition to repair the consequences.

Whoever finds himself summoned to such an emergency, will feel altogether better prepared for the duties of the occa-

sion, for having carefully read and digested the experience of the veteran surgeon of the Hôtel Dieu.

'A celebrated writer, in speaking of dislocations of the humerus, has affirmed that there are few maladies, the history of which is more advanced, and in the treatment of which the surgeon approaches more closely to the ideality of perfection. In the course of this lecture, however, it will be easily perceived how unfounded was this assertion, especially at the period when it was made. In fact, many questions of deep practical importance were then either scarcely agitated, or still undecided. Modern authors agree thus far — in admitting that these luxations operate primitively in three directions, the most frequent of which is that from above downwards, and beneath the glenoid cavity. My experience has, indeed, confirmed this theory. Again, it was an established principle, that in orbicular articulations the dislocation was invariably *complete*. Many facts, however, establish, that in that of scapulo-humeral articulation, the luxation sometimes is of the *incomplete* kind. The distinguishing symptoms of luxation and fracture of the superior extremity of the humerus were also considered obscure, but in a recent case the characteristic marks of these lesions have been pointed out with such precision, that error in this particular for the future will depend on ignorance alone. In numerous cases, too, of old dislocations, the ordinary method of reduction was insufficient even in the hands of the ablest operator. A mode, however, hitherto but little tried, has been put to the test in the Hôtel Dieu, and with the most signal advantages. Lastly, the important question of determining the latest period for the reduction of luxations in general, and this in particular, has hitherto been almost untouched by writers in this department of surgery. Such are the chief points which will receive elucidation in the subsequent observations. We shall previously describe a case which will serve as an introductory text.

Case 1. — A female mendicant, ætat. 41, received at the Hôtel Dieu on the 5th of last August, related, that on the 9th of the preceding month she had been roughly treated by some individuals, who threw her down and struck her with a stick. On getting up she exclaimed that her arm was put out of place. Some days afterwards, having been brought to Saint Lazarre, the medical attendants of that establishment thought she was right, and made four different attempts at the reduction, which

did nothing but increase the torture of the patient. Indeed, after these fruitless extensions, intense pain was felt even in the arm and fingers. A month had elapsed before she came to the Hôtel Dieu, and she then presented the following symptoms: — projection of the acromion, flattening of the deltoid, the elbow separated from the trunk and insusceptible of being brought into juxtaposition, incapability of elevating the arm towards the head, and, lastly, a bony projection in the axilla. This reunion of symptoms was strongly characteristic of luxation, but they equally appertained to fracture. It is true that crepitation and the mobility of bony fragments, especially belonging to the latter, were not present, but the interval since the accident was sufficient to have occasioned the cessation of these phenomena had they even existed before. Besides, fracture might have been produced by the blows of the stick, as well as luxation by the position of the limb against the ground at the moment of the patient's fall. Lastly, the bony prominence in the axilla did not resemble at all the equal rotundity of the head of the humerus.

You see thus, Gentlemen, that if you only consult the rational symptoms established at present by all authors, without exception, as affording characteristic differences between fracture and luxation, it would be impossible to form an opinion *à priori* on the nature of the case before us. An attempt at reduction was nevertheless decided on, care being taken to avoid the injury the patient would sustain if the case was absolutely a fracture. For we must not forget, that where fracture is mistaken for luxation, it may, it is true, be reduced, but when the parts are subsequently left to themselves, the muscles gradually reproduce the displacement. Before proceeding to the operation, the patient was prepared, as is our custom, in all old dislocations, by venesection, the application of poultices around the articulation, by baths, and moderate doses of the watery extract of opium. On the day appointed, the reduction was attempted in the manner we will subsequently describe. At the first efforts of extension the patient uttered loud cries. To divert her attention, she was accused of having been engaged in a thieving excursion on the night of the accident, a reproach which succeeded in eliciting bitter reclamations, but failed in facilitating the reduction. Several other attempts were equally unsuccessful. The deltoid, however, seemed to be less flattened, a circumstance which, coupled with the useless efforts at reduction, lent additional probability to the hypo-

thesis of fracture. The diminished flattening of the deltoid might result from a slight displacement externally, of the yet tender callus. In order to increase this tendency, a large cushion was placed between the arm and the trunk, and the elbow was drawn as closely as possible to the side by means of a bandage. But at the end of four days this treatment had produced no effect.

The facts thus related give rise to three important questions, of which it is urgent to find the solution, 1st. The symptoms we described being completely inadequate, by what means can we arrive at a true and certain diagnosis? 2nd. Supposing the case was luxation and fracture; the mode of reduction we constantly employ with success having been vainly tried in this instance, by what proceeding could we succeed? 3rd. Does the interval which has elapsed since the accident, contra-indicate the operation? Or, in generic terms, up to what period is it possible to reduce a luxation? In consequence of the difficulties we met with, it became imperative on me to study minutely the dispositions of the joint in this patient. At the same time a young surgeon, Dr Malgaigne, had the kindness to offer to impart to us the ideas which the case suggested to him. I received them with eagerness, since they seemed to me to be just in the extreme. The following are the results of this double investigation: — In the first place there existed in this patient a considerable elongation of the injured limb. But in every fracture of the long bones, if there be no displacement, the member preserves its natural length, and if there be displacement, it becomes shortened. In this female, the luxated limb, measured from the projection of the acromion to that of the olecranon, or to one of the humeral condyles, was longer by half an inch than the arm at the other side. This single symptom I consider irrefragable evidence of the existence of luxation. But besides this, M. Malgaigne points out others to which I proceed to allude. The first, which is indeed an effect of that I have just described, consists in an augmentation in the depth of the anterior wall of the axilla, and indeed in the present case, when measured from the inferior edge of the clavicle, to the free anterior edge of the axillary fossa, the axillary wall of the affected side was greater by half an inch than at the opposite side. Secondly, according to this gentleman the head of the dislocated bone should necessarily form an anterior projection in the spot where the subclavicular hollow is usually remarked. The difference of aspect thus produced is especially sensible in thin people, and

in the case under discussion was very apparent. Lastly, M. Malgaigne asserts, that on pressing the fingers immediately below the acromion, the deltoid muscle is readily depressed in case of luxation; and that was precisely what was observed in this woman. These four signs, ever constant in luxation, ever absent in fracture, each dependant on the other, and, even though isolated, of sufficient conclusiveness, were demonstrated in the amphitheatre.

New and Important Mode of Reduction. — The nature of the lesion being thus precisely ascertained, it was essential to learn whether or no the long duration of the accident contra-indicated the reduction. Experience, and numerous facts, having long since convinced me that injuries of this kind, and even of much longer standing, may be safely submitted to operation, we did not hesitate in our decision. The next point was, consequently, the choice of the method to be pursued, in place of that which had failed at Saint Lazarre and the Hôtel Dieu, and M. Malgaigne availed himself of the opportunity to propose a plan hitherto untried in France. It consists in making extension, the arm being lifted up forcibly, and consequently shortened, instead of extending the limb in a depressed and elongated position.

In order to give the new method a trial, the patient having been suitably prepared, the operation was proceeded with on the 14th of August by Dr Malgaigne himself. The patient having been placed in the recumbent posture, a folded cloth was placed in the acromion, its two ends brought towards the feet, and held at first by assistants, but afterwards secured in the ring, in consequence of the struggles of the patient. The extensor loop being arranged as usual, was entrusted to two assistants, and the dislocated arm lifted up as high as possible, so as to render it almost parallel with the axis of the trunk. Extension was practised at the same time, the forearm having been pronated, in order to substitute a straight lever for the bent lever represented by the limb in a state of supination. The first extensions only appeared to cause trifling pain. The head of the bone appeared perfectly in the hollow of the axilla, which it filled up. Gradually it elevated itself towards the cavity whither the extension drew it, and the two walls of the axilla, previously effaced, now began to disclose the cavity which separates them in the normal state. Meanwhile pressure was made with the fingers and palm of the hand on the head of the bone, in order to assist it in regaining its cavity,

to the level of which it had arrived. Twice in this expectation the arm was brought towards the trunk, but twice did the bone refuse to enter. Extension having again been repeated, the hand was pressed vigorously on the dislocated head of the humerus; the assistants then depressed the arm, and brought it close to the trunk, still persevering in the extension. A first trial failed, but the second completely succeeded, and the bone returned to its socket without noise. The shoulder had now regained its roundness, the elbow readily approached the trunk, the movements of the articulation were performed with facility, and the projection of the axilla disappeared. On repeating the measurement of the arm, it still remained longer than the other, and the projection of the head of the humerus below the acromion process, seemed a little less prominent than natural. It is not to be lost sight of, that the head of the bone was pressed upwards and downwards with unusual vigor, as the attempt at its reduction succeeded.

Remarks. — In a few days this patient's cure was completed, the arm remaining still a little longer than natural. Here then is our first success, publicly obtained, at the Hôtel Dieu, in a most difficult case, and by the new method. But whence did it happen that when the reduction was effected, the arm did not regain its natural length? Could it be that a portion of the capsule got entangled in the glenoid cavity, or did there exist any enlargemant of the cartilages? The latter presumption is not perhaps unfounded. Two causes indeed may determine the enlargement or swelling of the cartilages of an articular cavity, after a luxation. In the first place, the cause which occasioned the original displacement must necessarily have operated with more or less violence on the cavity, by means of the head of the bone. Thence is a source of irritation, of inflammation even, the chronic effects of which you know to be the increase of the density and thickness of the parts it affects. Moreover, experience has repeatedly shown that articular cavities, after the separation of the bone which originally occupied them, tend continually to close, and, indeed, become totally effaced after an uncertain lapse of time. Elongations, therefore, of dislocated limbs, as in the case before us, and in others of the hip-joint, may readily be explained on this supposition. Nevertheless, the explanation afforded by M. Malgaigne is equally satisfactory. According to this gentleman, in recent luxations, the supra and infra spinous muscles are applied against the glenoid cavity; the subscapular

muscle forms a kind of cap on the dislocated head. Is it not, therefore, likely that the time elapsed has permitted the formation of adhesions, which would, moreover, have been favored by the irritation produced in the numerous vain efforts at reduction? Sometimes there have been found, on the dissection of such old dislocations, false membranes approaching even to the cartilaginous state. Moreover, the swelling in the vicinity of the articulation could not, of course, cease instantaneously on the reduction, and, doubtless, the swelling is not less at the superior part than at the other sides of the cavity. Perhaps, indeed, this elongation, after the operation, only appears extraordinary because not previously noticed by authors. Such is an epitome of M. Malgaigne's reasoning respecting this phenomenon. Further researches are required to elucidate the nature of this elongation of the limb.

Having been inclined to believe that the elongation was an attribute only of the dislocation downwards below the glenoid cavity, while M. Malgaigne, on the contrary, thought that the head of the humerus occupying the cavity of a vault formed by the acromion, the caracoid process and the uniting ligament should manifestly be on an inferior level when it is pushed beneath either of the pillars of this vault, an appeal was made to experiment, in order to decide the question. With the dry bones it was evident the subacromial dislocation induced the elongation of the arm, but in the case of the subcoracoid luxation, the matter still remained doubtful. Experiment was again resorted to. This luxation was produced on an articulation newly prepared, with its ligaments entire, and all accurately measured. Elongation to the extent of half an inch was found to have been occasioned. As to the dislocation downwards, the experiment was made with the same articulation. All the muscles having been removed, it was nevertheless impossible to effect the displacement, until the ligamentous fibres which unite the capsule to the acromion and caracoid apophysis, were divided with a bistoury. Elongation to the enormous extent of an inch and a half was produced, an extent greater than has yet been noticed in the living subject. But the question naturally suggests itself, — Do the results thus obtained on the dead subject take place in the same manner in the living? The answer can only be obtained by numerous autopsies.

Further Trials of the New Method. — The extent to which I have treated of the preceding case, sufficiently shows

the many interesting questions which the study of scapulo-humeral luxations still presents for our examination. Since this case, two others have presented themselves, the reduction of which was proceeded with in the new method.

Cases 2 & 3. — The first of these was a washerwoman, ætat. 67, of low stature, thin, and of feeble muscles. She had fallen down the stairs of a cellar, and had rolled along perhaps a dozen steps. The accident occurred at eight A. M., on the 27th last October, and she immediately repaired to the Hôtel Dieu, where it was ascertained that she presented a *sub-coracoid* or *inferior* and *anterior* luxation. The reduction was immediately proceeded with. An assistant seized the hand of the dislocated limb, lifted it up parallel to the axis of the body, and drew it directly upwards. A second assistant leaned on the scapula, in order to produce counter extension, while I directed the head of the humerus with both thumbs. At the first effort of extension the reduction took place without difficulty, and with scarcely the least pain. The arm was then brought down cautiously, close to the trunk, to which it was secured by a bandage. In twelve days this patient was cured. This method consisted, as it were, in lifting up the patient by the dislocated arm, extension cannot be practised in the sitting posture, if the patient be of high stature. In such cases the injured person must be laid in the horizontal attitude, or the assistant who makes the extension must mount on a table. The morning after the preceding operation, a female, aged 45, of weak muscle, but of high stature, came to the consultation, presenting also a sub-coracoid luxation. She was placed on her back, a cloth folded like a cravat passed over the shoulder, both ends turned over and brought downwards towards the trunk on the opposite side, and confided to two assistants, in order to practise the necessary counter-extension. Two other assistants lifted up the arm parallel to the axis of the trunk, and practised extension, while the head of the humerus was pushed from below upwards with both thumbs. At the first effort the luxation was reduced without pain. The patient immediately began to laugh, and left the hospital.

In these two cases it is true the circumstances were all favorable. We had only to manage recent luxations, in emaciated women, advanced in years, and retaining no muscular energy. In similar cases the ordinary method would doubtless have succeeded. Nevertheless we must remark, that in these cases, and with the new proceeding, it was unnecessary to take any

precaution, or to fix the patients to the ring. The reduction was operated without effort and with an ease and promptitude truly remarkable. It would, I think, be unjust to attribute all these advantages to the age and constitutions of the patients, and to refuse to the operation the share of praise it so justly deserved.

We have thus, Gentlemen, dwelt with sufficient length on a method hitherto unknown to you, and the value of which you are enabled to estimate by its practical application. I propose to employ it in other cases according as they present themselves. In the meanwhile we shall direct your attention to some other and not less important questions connected with the scapulo-humeral luxations.

Liability to Scapulo-Humeral Luxations. — Even though the records of clinical surgery were silent on this subject, the anatomical disposition of the scapulo-humeral articulation would have been aufficient to indicate its liability to the accident. It is indeed only at the sacrifice of strength that this joint possesses its extraordinary mobility. A cavity protected by an osseofibrous vault, a bony head retained in this cavity, a capsule which envelops and maintains the relations of the entire, a great number of muscles for the motion of the parts — such, you are aware, constitute the elements of this articulation. But the disproportion which exists between the dimensions of the head of the humerus and those of the glenoid cavity, — the laxity and tenuity of the capsular ligament, especially at its inferior edge, the situation and uses of the arm, exposed perpetually to the action of external violence — all these are circumstances which provoke and favor the displacement of the limb, and they would act more powerfully still, did not the scapula accompany the shoulder in its movements, and thus extend the limits within which the bones of the articulation preserve their normal relations.

Directions of the various Luxations. — There is, perhaps, no subject in surgery respecting which authors differ so much in opinion as regarding the different species of luxations of the shoulder. This, however, is not the place to give the history of these divergencies of opinion. I shall confine myself to stating to you, that experience and observation have taught me that the arm may be primitively displaced in three principal directions: 1st, Below; on the *axillary border* of the scapula; 2nd, Within, or anteriorly, into the *sub-clavicular* fossa; 3rd, Before, or without, into the *sub-spinar* fossa. The presence of the acromion and caracoid processes, united by

a very strong ligament, and the situation of the humeral extremity of the clavicle, directly oppose the luxations *upwards*; nevertheless Sir Astley Cooper admits a partial luxation in this last position. The upper part of the capsule being torn, the head of the bone, according to this author, applies itself against the posterior edge of the carocoid process.

Luxation downwards. — The luxation of the humerus *downwards*, the only one primitively possible according to many authors, is unquestionably that most frequently met with. It is generally produced by a fall on the elbow, and especially on the palm of the hand, while the arm is extended and separated from the body. The humerus then inclines towards the glenoid cavity so as to form with it an acute angle, the sinus of which is turned upwards. The head of the bone gliding thus from above downwards on the articular cavity, is strongly pushed against the inferior part of the capsule. This pressed against inversely by the weight of the body, tears asunder, and permits the escape of, the head of the humerus, which is, moreover, hurried on by the contractions of the greater pectoral and trapezius muscles, and is at length brought to the inner side of the anterior edge of the scapula, between the subscapular muscle and the long portion of the triceps. The great pectoral and trapezius muscles act as a lever, the fulcrum of which is the elbow, the resistance being at the articulation of the shoulder. The luxation *downwards*, again, according to several authors, may be produced by a violent blow on the external part of the shoulder, below the acromion, but then the luxation is often complicated with fracture of the scapula or humerus. The displacement may also be determined by the muscular contractions alone, in a violent effort at elevation of the arm in lifting up a burthen, or during an epileptic paroxysm, whether we admit that the deltoid depresses the head of the bone, and pushes it, inferiorly, out of the capsule, or think with M. Boyer, that there is a simultaneous contraction of the pectoralis major, trapezius, and levator muscles.

The symptoms of this dislocation are, the elongation of the arm, its oblique direction outwards, the elbow apart from the body, and incapable of being brought close to it, the head and the trunk bent towards the affected side, the fore-arm in a state of demiflexion, incapacity of voluntary elevation or rotation, acute pain occasioned by any attempt at these movements, deformity of the shoulder, and considerable projection of the acromion, below which exists a hollow occasioned by the flat-

tening of the deltoid, no longer sustained by the head of the humerus. Lastly, this forms in the axilla a hard and rounded tumor.

Luxation within. — The dislocation *within*, or anteriorly, occurs in a fall on the elbow while held apart from the trunk and before the body. The persistance in this attitude when the patient gets up, the presence of a tumor formed by the head of the humerus below the clavicle, and before the summit of the shoulder, which is less deformed than in the preceding variety. Finally, the impossibility of bringing the elbow forwards without causing intense pain, leaves no doubt of the existence of a dislocation of this description. It is, however, much more rare than the luxation downwards. It is as rarely primitive, and is generally consecutive to the first variety.

Luxation without and before. — A fall on the elbow while held upwards, may produce the luxation *without* and *before*. This displacement is extremely unusual, and would, perhaps, be impossible without a previously defective construction of the glenoid cavity, when, for example, it is abnormally inclined forwards, and considerably elongated. In this luxation the arm, little distant from the breast, is directed forwards and inwards, the shoulder is merely flattened at its anterior part, and the head of the humerus projects below the spine of the scapula, and towards the external side of the anterior angle of this bone.

Epitome of opinions. — I have thought it necessary to enter into these elementary details, in the first place for the information of many of those present; but, above all, in order to collate them with the modifications which it is desired to introduce into the theories generally admitted, and which I proceed to epitomize. 1st. The elongation of the limb in the luxations *downwards* is not a newly observed fact, I have observed it in all the cases I have treated in my long experience. But does this elongation exist in every description of luxation of the shoulder, as some persons assert, or, on the other hand, is the arm sometimes longer and sometimes shorter, according to the variety of the displacement, as some other persons imagine? 2nd. Can the humerus be dislocated primitively only in one direction, and are the other luxations merely consecutive on this? 3rd. If it be true that there exists but one primitive luxation, in what direction does it take place? 4th. Can luxation not occur without laceration of the capsular ligament, or is it sufficient for the escape of the bone that the lig-

ament should be merely dragged or extended. 5th. This torn capsule in exercising a construction about the displaced bone, can it oppose the reduction as Desault believed, or is this obstacle as imaginary as Sir Astley Cooper persuades us? 6th. There still exists varieties of opinion even regarding the anatomical structure of some of the uniting media of the articulation, and each author explains himself after his own manner of viewing the structure of the parts. Thus it is that some in whose opinions I have all along coincided, admitting that the lower part of the capsule is its weakest side, have considered the luxation *downwards* as the most frequent, while others maintain that this lower part is the thickest, that the capsule is slighter elsewhere, and only place the luxation *downwards*, in the third rank for frequency and facility of production. Now in the recollections of my experience, I could readily find sufficient facts to decide the majority of the preceding questions, but this discussion would prove too extended at present. I confine myself now to point out the questions to your attention, and as new facts present themselves we shall return to their consideration.

Incomplete Luxation of Orbicular Joints. — It is generally said, that in obicular joints dislocation is invariably *complete*. Pathological anatomy has, however, proved the contrary, in offering us examples of *incomplete* dislocations of the arm and thigh. In 1824 the surgeon of one of the Parisian hospitals presented to the Academy a preparation of the articulation of a man who died eight months after dislocation of the humerus, which had never been reduced. It presented a false articulation, constituted in one part by the glenoid cavity of the scapula, and a small portion of the surface of the ribs; in the other, by the head of the humeris, hollowed into a groove to receive the anterior border of the glenoid cavity, in a species of ginglymoid cavity. During life the arm could perform very limited motions from before backwards. In a case of spontaneous luxation of the femur, the same practitioner has seen the softened head stop short on the anterior ridge of the cotyloid cavity, and there remain fixed as if on a rivet. Here, then, are two examples of the *incomplete* luxation of the two principal obicular joints; a luxation difficult indeed to be imagined, and denied universally by writers on the subject.

We have already seen what are the symptoms peculiar to each species of scapulo-humeral luxation; but we have also pointed out that these symptoms equally appertain to fracture

of the superior extremity of the shaft of the bone. The distinguishing marks were first pointed out in the clinical lectures at the Hôtel Dieu, and have since become the object of an excellent memoir published by Dr Marx.

Luxation and fracture, simultaneously and otherwise.—Every person who is affected with a luxation or fracture of the superior part of the humerus, must have fallen on the side of the body corresponding to the lesion, but the position of the limb at the moment of the fall is not the same in both cases; and this difference commonly decides on the consecutive injury, and enables the surgeon to ascertain its nature. If any displacement occur when the arm separated from the body has been held *forward* and *outward* to meet the ground and deaden the effects of a fall, this displacement will be a luxation without fracture. If, on the contrary, the arm have been retained close to the chest as in an unforseen and sudden fall, the patient, for example, having his hand in his breeches pocket, it is on the tip of the shoulder that the weight of the body is projected, and then, when there is displacement, it is the effect of a fracture or comminution of the head or upper part of the bone. In both cases there is acute pain in the tip of the shoulder, and the patient always believes that he fell on the pained part. But when the pain is caused by luxation, the fall having been on the palm of the hand, this is usually soiled with dust or mire, or presents ecchymosis or excoriations. If, on the contrary, the pain is determined by the fracture of the bone, it is ascertained, that the fall took effect on the shoulder by the absence of all marks on the hand, by the soiling of the clothes or of the skin of the shoulder, or by the bruises, ecchymosis, or wounds of this region. In the dislocation, again, the pain depends on the laceration of the fibrous capsule and adjoining tissues. In fracture it is produced by the contusion of the shoulder, and the tearing of the soft parts by the lower fragment of the bones. As an effect of these lesions, ecchymoses may, and usually do, take place; but as this ecchymosis in dislocation is produced by laceration of the internal parts of the joint, while in fracture it arises from external contusion, the seat of the extravasation is altogether different in both cases. In dislocation it is situated at the anterior or inner part of the arm; in fracture, on the upper surface of the shoulder. Lastly, it is rather rare in luxation but constantly observed in cases of fracture.

In both these lesions the acromion is projecting, the deltoid

flattened. A hollow is felt at its internal side, and a projection in the hollow of the axilla; but an exact analysis of these symptoms almost invariably removes the doubts which a superficial examination occasions. In fact, the prominence of the acromion is more considerable, the flattening of the deltoid greater in the luxation than in the fracture, in which this muscle appears shortened and swelled. The hollow beside the deltoid is greater also in luxation, the prominence in the axilla more decided and rounded. These are, to be sure, differences only in degree dependent on the completeness or incompleteness of the displacement of the bone.

In luxation there is no mobility of the limb or crepitation, but both these phenomena are readily perceptible in fracture. Is the humerous dislocated? You may try to move the limb as long as you please, but the articulation acts as a continuous piece, and the scapula often yields as if one and the same bone with the humerus. Is the arm fractured, on the other hand? There is preternatural mobility at a certain point of the upper extremity of the bone, usually accompanied by crepitation, most readily perceptible when the arm is rotated on its axis. Finally, what chiefly distinguishes luxation from fracture is, that the first requires greater efforts to be reduced, and that it suffices after reduction to maintain the arm close to the chest; while in fracture an apparatus is indispensable to preserve the fragments in contact, to prevent the renewal of the displacement by the action of the muscles, and to obtain a cure without deformity or embarrassed facilities of motion.

It sometimes occurs that when fracture consists of a simple solution of continuity without displacement, it is confounded with a severe contusion of the tip of the shoulder. The crepitation and preternatural mobility of the parts can alone decide the difficulty. We must not, however, be deceived by a spurious crackling which is frequently met with in violent contusions of the shoulder, and which is occasioned by inflammation of the articular surface and diminished secretion of synovia. The following cases illustrate these observations.

Treatment of luxations of the Humerous. — We shall conclude this lecture by some remarks on the *treatment* of luxations of the humerus. This, as in luxations, generally may be divided into three kinds; the preparatory, the reductive, and the consecutive. Though, usually, simple dislocations of the arm may be complicated with œdematus swellings of the upper

extremity, with paralysis with a wound of the axillary artery, with emphysema, or inflammation of the articulation. All these accidents become the objects of special indications. The œdema is rarely seen but in the luxation *downwards*, and is occasioned by the pressure of the head of the bone on the veins and lymphatic vessels. It disappears after the reduction, or yields quickly after it, to the application of a roller, imbued with some resolvent fluid. Inflammation, according to its intensity, may be combated by local or general bleedings, by baths, and emollient applications and fomentations. Partial or general paralysis of the muscles of the upper extremity, a symptom frequently observed, occurs, when either the circumflex nerve alone, or, what is more common, when all the nerves of the brachial plexus, are distended or contused by the head of the humerus at the moment of its dislocation. Antiphlogistics, rubefacients, blisters, or moxa above the clavicle, form the items of treatment in this affection, when the nerves have been only compressed, and in this case the complication admits of a cure; but when the nerves have been disorganized, the affection is hopeless.

The lesion of the axillary artery is very rare, and happens more usually during reduction than at the time of the luxation itself.

In order to facilitate the reduction of old dislocations, baths, cataplasms, emollients, rendered narcotic by the addition of laudanum, extract of aconite, hyosciamus or belladona, are advisable, and in young and vigorous patients bleeding should be resorted to.

To reduce the luxations in the ordinary manner, the patient is placed on a chair. The middle of a loop formed by a folded napkin is placed on the back of the hand, and its ends turned over to the palmar surface and twisted. This extending noose is fixed by a circular bandage: a sufficiently voluminous fold of linen is then placed in the axilla, in order to prevent the undue action of the counter-extending noose on the great pectoral and trapezius muscles. The counter extending loop is made of a cloth folded like a cravat; its middle part being applied on the fold of linen, its ends are brought, one forward in front of the chest, the other behind, and both crossed over the sound shoulder, fixed to a ring in the wall, and confided to an assistant. A number of assistants, proportioned to the necessary efforts, seize the extending noose, and await the gesture of the surgeon to commence. If the luxation be

downward, the extension is at first in the same direction as the displacement, the arm is then brought downwards and forwards, while the surgeon leaning the external side of the elbow against his chest, brings the head of the bone *upwards* and *outwards*. If the luxation be *inwards*, extension is made *outwards* and *backwards;* and when the head of the bone is disengaged, the surgeon moves it *outwards*. If the luxation is into the subspinous fossa, the extension should first be from *behind forward*. According as the head is freed, the operator pushes it in the same direction, and then the extension is made more directly outwards.

Sometimes, especially in old dislocations, there are difficulties to be overcome which depend chiefly on the resistance of the muscles. To conquer this, various violent machinery, as dangerous as useless, was formerly employed. For this, the modern surgeon substitutes the *diversion of the patient's attention;* a moral method, which, in a practice of twentyfive years, has failed no more than once every second or third year.

The noise of the returning head of the bone, the re-established form of the joint, and the facility of motion, indicate the replacement of the bone. The reduction finished, the limb is maintained in a proper position against the trunk by a bandage which passes round the body, and by a sling which supports the elbow.

The accidents which sometimes complicate dislocation, may also be the effect of reduction, and especially in those cases of long duration. Nevertheless they are infinitely less frequent than some persons pretend, as is proved by the history of the numerous series of old luxations which we have given in the tabular form. The chance which, in the short space of three or four years, supplied M. Flaubert with a collection of all the accidents which reduction can occasion is doubtless extraordinary, and the cause of it is perhaps to be sought for in particulars, with which we are unacquainted. The emphysema of the chest, which this surgeon witnessed in one of his cases was seen also by Desault. In similar cases it is advisable to cover the tumor with resolvent applications, and subject it to graduated compression by a bandage, which would thus fulfil the double object of securing also the arm to the trunk.

Respecting the old dislocations, in conclusion, it will be useful to observe, that, according to the facts we have related, their reduction may be obtained without running the risks which so many apprehend. If we proceed according to known

facts, M. Sanson's case shows the practicability of reduction within 98 days. But it is equally evident that the term for the operation cannot be indefinitely prolonged.

Fatal Poisoning by Oil of Tansy.

Communicated for the Medical Magazine by Charles T. Hildreth, M. D., Boston.

Poisoning from the oil of tansy is perhaps rare; but a moderate and *careful* use of the remedy as an emmenagogue in alleged cases of 'obstruction from cold,' is of more frequent occurrence than might be supposed. From the days of Aristotle to the present time, a certain class of medical writers have recommended this plant as safe, and more or less efficacious, in cases involving a suppression of the catamenia. 'Its virtues,' they say 'are tonic, stomachic, anthelmintic, emmenagogue and resolvent,' and it is further said to be 'valuable in the hysteria, *especially*, when this disease is supposed to proceed from menstrual obstructions.' In Scotland it was at one time a celebrated remedy for the gout. As a vegetable bitter, the herb should have its place, where such remedies are required; but its essential oil should be forbidden by law, to be bandied about, as it is, by hawkers and pedlars in every street and corner, both of town and country. Oil of tansy is not alone used for procuring abortion, it is only one of the many dangerous remedies employed by those who are ignorant of a more scientific way; but the person who is unprincipled enough to destroy, by any means, human life, whether it be animal or organic, could he but receive plenary justice, for infringing the moral laws of our nature in so flagitious a manner, ought not and would not be tolerated in society, from the mark that would be set upon him.

We were led, Messrs Editors, to make these remarks, by the following melancholy occurrence.

Mrs ——, aged 27, a widow, and the mother of a fine boy three years old, complained to a female friend, that she had not '*seen any thing*,' to use her expression, for the last six weeks. She attributed the fact to having gone into a damp cellar, and wetting her feet. The night of this conversation

she was very sick, in a manner similar to the females who are very ill at the menstrual period; severe intermitting pain in her back, weight, fulness, &c. — for which hot tansy tea was administered to her, with other simple remedies. By morning she was quite well. This was about three weeks since, and occurred in the city, where she was living as an assistant housekeeper. A fortnight after this, she went to Weymouth and Bridgewater on a visit to her sisters, and returned to her place in the city, in the stage, October 23d, at 5 P. M. On her arrival, she went directly out, and after considerable difficulty, succeeded in purchasing, somewhere in the city, half an ounce of the oil of tansy, (though no apothecary can be found who acknowledges having sold such an article to a woman on that day.) This she took to her chamber, and drank off, probably eating an apple or two at the time, as a large piece of the skin was found in the opening at the end of the stomach pump which was used to relieve her. She was soon called to tea, (this was a few minutes past six,) and the odor of the tansy was so strong, that all in the room perceived it. She drank half a cup of tea, eat a very little, if any bread, rose from the table in a few minutes and went to her chamber. She soon called to the woman of the house, who ran to her assistance and inquired the cause of her alarm, for she seemed much agitated, and had sat down on the side of the bed. She told her she had taken half an ounce of the oil of tansy ,and she felt very strangely, as if she should die. Why did you take it? — a woman at Bridgewater advised me, was her reply, and I believe it will kill me. She now fell from the bed on to the floor, from the effect of a general spasm which had seized upon every muscle. After having lifted her upon the bed, and being informed as to the cause, the keeper of the house summoned us very hastily to attend her.

On our arrival, which was about fifteen or twenty minutes after the medicine was swallowed, we found her lying on the bed, free from spasm, calmly and quietly waiting the result, as if she knew it would be fatal, and as if she had made up her mind for the worst. Her skin was warm and moist, pulse soft, small and somewhat excited. She was perfectly sensible, knew the attendants, and that we were going to administer an emetic, which she seemed determined to resist. We mention these circumstances because in those cases where we have been called from accidental poisoning, as in one from oil of tansy, a few drops of which produced slight spasms, but termi-

nated favorably on vomiting, and others from oxalic acid, &c. the patients have invariably been anxious for relief, and willing to take any remedy which promised it. This state of the patient was noticed, on presenting her with a very active emetic which we had carried with us, of ipecac and sulphate of zinc, and which she decidedly refused to take, but on a little persuasion from her female friend, she sat up, (we offering her a little assistance) and took the cup; the motions, I thought, were not quite easy and natural, perhaps slightly spasmodical, and she drank it very slowly, drawing it through her lips, which were too near together to drink freely, making a sipping noise like children who do not like the taste. In this way she drank about one half of the tea cup full, when she was seized with a most rigid general spasm, which lasted about a minute, with very little shaking or motion. She came out of it while we were laying her down. We directly raised her up to take the remainder of the emetic, and the spasm came on again. The patient was now placed on the pillow, and a table-spoon used to separate her jaws, which were very firmly closed, and as no other part of her body was spasmodically affected at that moment, we concluded the contractions were in part, if not altogether voluntary; for she was so far conscious, that her hands were very freely used to prevent the administration of the emetic, but she said nothing. Her hands being secured, the emetic was soon administered, she swallowing perfectly; not a particle of it going into the wind-pipe. Some of the medicine she sent from her mouth by the force of her breath, with every appearance of premeditation. A strong mustard emetic was now given in the same way, which she resisted more strenuously than she did the ipecac and zinc, because it was more stimulating to the fauces. It was, however, administered and followed with warm water. The patient's body was now lifted over the side of the bed; the head in a depending posture, the body nearly vertical, with the hope that the contents of the stomach would run out by its own specific gravity; but nothing flowed from the mouth, owing to the pulp and skins of the apples, which acted like a valve of sponge to obstruct the cardiac orifice of the stomach.

A stomach pump now arrived, and with the assistance of Drs Fisher and J. B. S. Jackson, we filled the stomach several times with warm water, and as often emptied it, the water drawn off being highly impregnated with tansy. There was no effort at vomiting, and no nausea manifested. The pupils, during the

first hour, were very closely contracted, and the spasms occurred once in about twelve minutes. They were the most violent rigid kind of clonic spasms, but not conclusive; they came on instantaneously and generally, and continued about one minute. They were attended with slight, if any, motion of the arms — it might be called a trembling. The arms were peculiarly affected, and invariably in the same way; they were thrown out, forward of, and at right angles with the body — the hands, at the wrists, bent at right angles with the fore arm supinated, the points of the fingers nearly in contact, the fingers straight, and slightly bent at the joint which unites them with the hand. The muscles of respiration were strongly affected during each paroxysm, air was forced from the chest, slowly but steadily, and made a slight hissing noise as it escaped from between the patient's lips. During the intermission of spasm, the muscles were perfectly flexible, and the transition seemed very sudden. The jaws were the only exception to this rule, they were for the first hour and a quarter rigidly closed, and were with difficulty opened, but after that were subjected to the same action as the rest of the body; when the spasms were on they were rigid, and when they were off they were relaxed; after this the pupils of the eyes became very much dilated, and remained so. Her respiration was laborious, not sterterous; blowing the mucus and saliva from her fauces and mouth, but the saliva did not appear to enter the larynx. There was no coughing, nor was there any ronchus in the wind-pipe, as there would have been if much fluid had been there — the ear would have detected it. This respiration was more marked after each spasm, but not very much unlike that of sound sleep, a part of the time when most quiet. As the patient grew weaker, the spasms were more frequent; but had about the same severity and length. The rigidity of the jaws were voluntary in the first instance, but when she lost her entire consciousness, they became permanently contracted which was about twentyfive or thirty minutes after our arrival, and about the time the stomach pump was ready for use.

Much impediment to the perfect use of the pump was found in emptying the stomach, from the skins of apple getting in and obstructing the free passage of the water. So that, toward the last of our efforts, we found that by holding the body vertically, leaving the gum elastic tube in, the water would run through it quite as freely as it could be pumped out. The

pulsations of the heart became more and more feeble after every spasm. In the last spasm but one it could not be heard by the ear applied directly over it on the chest. The function was fully resumed in the interval, and in the next spasm she expired, five minutes before eight, P. M. from the time of taking the oil of tansy rather less than two hours.

Examination of the body twelve hours after death. Frame rather large and fleshy — face and back of shoulders sublivid. Very little rigidity — but more after the examination. On abdomen those shining wrinkles, marks of her former pregnancy were observed. *Head* not examined.

Thorax. Strong odor of tansy from chest — left side healthy — right lung universally adherent, old, close, but not strong. The lungs contained a moderate quantity of very dark blood, in almost every part, otherwise healthy. Heart contained a large quantity of blood, more in right side than left, liquid — no coagula were seen in any part of the body — blood, dark and thick.

Abdomen. Stomach not large — contained about eight or nine ounces of a pultaceous substance, composed mostly of apple, and smelling very strong of tansy — a small quantity of darkish fluid was seen floating on the top. The membrane was covered with a thick coat of mucous, which, on being washed off, presented as healthy a mucous membrane as we ever saw, both as to thickness, firmness and color. We never saw it more thick, or more firm. No abrasions from stomach pump; œsophagous overlooked.

Intestines, healthy so far as examined. Part of illium and duodenum opened — in the first, Brunner's glands numerous, size of pin's heads — Peyer's not seen. The small intestines contained some fluid resembling thin gruel with a little milk in it; mucous membrane healthy so far as seen. The intestines were very empty, considering that the woman had eaten a full dinner that day, with usual appetite and good spirits — but during her ride in the stage, she was silent and dispirited — lacteals going from small intestines, numerous, large, and perfectly white.

Liver — spleen — and kidneys, healthy, a small quantity of a thin creamy fluid in cavity of kidneys, in which the odor of tansy was slight. Bladder contracted, empty of urine — whole mucous membrane covered with a fluid like thin, pale cream.

Ovaries. The right, natural in color, consistence and size;

on slitting it open, two small oblong, deep red spots, or rather bodies, were cut through, one in each extremity of the organ — about the size of a large grain of wheat. Left ovary more full and plump than the right, deeper red, one quarter larger, and moderately soft; this ovary most probably furnished the ovum. On its surface was a small orifice the size of a pin, which was made very plain by placing the organ in water, when a very small particle of cellular tissue was seen undulating in the orifice held by a very small fibre which seemed to originate from some depth in the organ. On cutting through the ovary a little to one side of this opening, a body was found, the size of a small marble, round, not firmly attached to the surrounding parts, occupying rather more than one half of the ovary, in the then recent state; not appearing quite so large now in the preparation. This body consisted of two parts perfectly distinct in character, though at their limits passing one into the other. The outer or cortical part was about two lines thick, dull yellow color, close in texture like lymph, and felt so, but was most probably the circumference of the ovary in a natural condition, with some coagulable lymph effused in its texture, so it appears now after maceration, the lymph being washed away and the natural texture of the ovary shown; the remainder or interior, consisted apparently of coagulated blood, dark red, contrasting beautifully with the yellow ring around; but at the point where the orifice was seen, the central deep color was extended to the surface.

Uterus rather more colored than natural. Under part of fundus, quite a dark chocolate — perhaps cadaveric. Length of uterus four inches from extremity of ostincæ to fundus, — greatest breadth two inches — just before the fallopion tubes, neck less developed than body — it seemed rather narrow — length of neck one inch and seven eighths. Fundus more prominent on right side than left; the whole organ feels doughy, retaining the impression of the fingers. Ostincæ quite prominent, divided into equal lips; anterior the most prominent. To the touch immediately after death, patulous; on the examination, the inner surface of the lips quite red, as if having been mechanically irritated, yet on attempting to pass a probe into the uterus after removal from the body, considerable obstruction was met with, about half an inch in which was not overcome, for fear of injuring the ovum; there was an abruptness in the termination of the mucous membrane on the edges of the ostincæ, or rather a very prominent line of demarkation where

the great redness began — the mucous membrane of vagina and the outside of ostincæ being of a natural color, perhaps rather pale. Vessels going to the uterus not much, if at all, larger than in the unimpregnated state. The uterus was opened on anterior face from near the ostincæ to fundus; and transversely, midway the body of the organ; at each extremity, inclining upwards so as to expose the opening of the fallopian tubes, which were pervious and freely admitted a small probe. The thickness of the organ was not very much greater than in the unimpregnated state, and the substance was not so dense. Neck very little changed.

The internal surface or the cavity of the organ was filled to the depth of two or three lines, with an exceedingly soft, almost pulpy mass of a whitish color half fibrous half cellular to the eye, yet to the touch, so delicate that it might, apparently have been scraped off with but little, if any effort. This extended half the length of the neck, and it was that which probably obstructed the probe. It was undoubtedly organized, for it yet retains the same form and appearance after a number of days maceration, and some few, but very careful examinations. Was this the decidua? or was it the internal surface of the womb in a softened state? whatever it was, it closed the internal surface or cavity of the womb upon, and united it to, the ovum, which was attached to the anterior part of the fundus, and here there was more redness than at any other part of the organ, but this not high colored. It appeared like a rounded cyst somewhat flattened, evidently containing fluid; the cyst or outer membrane was cut through, showing at the cut edge a thin, well formed membrane, when cut, a small quantity of bloody serum escaped. On dilating the opening, the shaggy coat of the chorion was seen, by enlarging the incision, the chorion with its ovum escaped from this sack, and fell to the bottom of the vessel, this part of the dissection being made under water. It had been slightly wounded by the knife; it was very thin and through this opening could be seen a very delicate cyst containing the punctum saliens about the size of a large shot, with a fine thread-like cord attached; to see this, the object was placed in the sun, and floating in clear water.

The outer cyst, or membrane, containing the chorion, was well formed, moderately thin and dense, continued round so far as was seen, forming a shut sack; inner surface smooth, but rather uneven as if traversed by delicate bands. The chorion

with its contents was half an inch in diameter rather oval than round.

The subject of this paper had received attention from a man for the last year, and they spent the evening together, Sept. 26th, just twentyseven days previous to her death, and they were not alone together for a very considerable time before or after that period, which is pretty strong proof presumptive, that the age of this embryo was *twentyseven* days.

It is really surprising that in all the works on poisoning and medical jurisprudence, no mention is made of the oil of tansy, when it is known to be so virulent a poison. Perhaps it may result from this fact, that all essential oils being more or less poisonous, nothing more needs to be known on the subject. But some facts should be collected as to its mode of operation in large and small doses.

In this department of medical science something more should be accomplished. Can there be found no re-agent or antidote to neutralize this article of so concentrated a power? The remedy, if ever discovered, must be quickly resorted to; for the poisonous element, whatever it may be, soon pervades the nervous system, and destroys life by an ethereal influence which takes possession of every avenue to the brain with fearful and uncompromising rapidity.

From the great irritation it produces as a rubefacient, we have been often asked if the stomach was much inflamed, so far from that, we never saw a more healthy stomach; mucous membrane rather more thick and firm than natural: those we are accustomed to see, it should be remembered, have often been a long time ill before death, but this woman from perfect health, in less than two hours was a corpse. Had the medicine been taken in very small doses and repeated, it would like all other stimulants undoubtedly have inflamed the organ. But in a large dose it destroys life as by a coupdemain. Consciousness and the power of voluntary motion remained for twentyfive or thirty minutes, even after this large quantity was swallowed, and after she had had one very violent general spasm she held conversation with those about her and sat up, but as the spasms were repeated, her consciousness or her ability to do as we requested grew less and less — until she lost all perception of external impressions. It is to be hoped that, should other cases occur, they will be recorded — that it may be known how much or how little of the article is compatable with life and the continuance of health.

In order to ascertain the fact that it was oil, and not the essence of tansy she took, having in our own possession the phial from which it was taken, containing a few drops which she left, we, in the presence of Dr Bigelow and at his suggestion, dropped one drop into a tumbler of water, and instead of uniting with the water as the essence would have done, it floated distinctly and in a mass upon the top of the water, spreading itself over a very considerable surface from its great volatility, and filling the room with its very strong odor.

Present at the examination of the body, Drs Fisher, J. B. S. Jackson, Putnam and Watson; it is with pleasure we acknowledge, that in the correction of our own notes of the post mortem, we were much assisted by those of Dr Jackson.

No. 3 Beach Street, Oct. 29.

Foreign Empiricism a Plaintiff in the Courts of Massachusetts.

Morison and Moat vs. *John K. Palmer.*

This was an action for damages, founded on an alleged trespass on the rights of the plaintiffs, as the proprietors of the celebrated Hygiean Pills. Mr Peabody, in opening the case, stated that James Morison, one of the plaintiffs, had started, early in life, with a good education and benevolent intentions, in pursuit of the long sought Panacea —a medicine which would apply itself, with certain efficacy to all the disordered organs and functions of the human body. About ten years ago the goddess Hygeia smiled on his persevering efforts in her service, and he found himself the happy inventor of a certain vegetable compound, which is antidote, prophylactic, and cure for 'all the ills that flesh' (or spirit) are heir too.'— thrice happy in the confidence and popularity which his medicine procured in all parts of the civilized world. After a short time he formed a copartnership with Mr Moat, and they proceeded to establish the 'British College of Health,' at a cost of about 500,000 pounds sterling, and appoint agents for the sale of its product in all the principal cities in Europe and America. The demand for it had become very great, and the quantity sold in the United States, has amounted to $250,000

per annum. The success of the original article has led to many counterfeits, and additional guards have been applied, by way of envelope to the boxes. About a year ago it was found that the defendant had imitated both the inside and outside of the boxes of Morison, and had sold about 100,000 of them, as the genuine article. The plaintiffs must prove that Morison and Moat are the sole proprietors of the genuine Hygeian pills, and that the defendant had made and sold others for them, thereby taking from the original proprietors the profits of the sale of just so many boxes as he disposed of, besides injuring the credit of the medicine by circulating an inferior kind. With this proof they will have made out their case, and become entitled to the indemnification claimed, which is 5000 dollars.

H. Shephard Moat, examined — is son of one of the plaintiffs, and sole agent for the sale of their pills in the United States and South America. Came here about four years ago, under a verbal agreement with them, to receive the pills they might send over, and by means of sub-agents, to push them into every town in the country. His commission is 37½ per cent, of which 25 per cent is paid to sub-agents. Morison and Moat are the only living persons who know the composition of the pills. They are made in some of the apartments of the 'British College,' which is also occupied by the families of the proprietors. This Institution consists of Messrs Morison and Moat who are active members, some two or three and twenty others, who are honorary members, and the building in —— street. It has no incorporation nor charter, no pupils nor degrees; but Mr Moat and some other gentlemen have given lectures on Hygeia, and the honorary members do nothing but administer the pills to such as they can find willing to be doctored by them. Cannot make the pills myself, and am forbidden by my employers to allow any chemists or druggists to be concerned in the sale of them. Have 40 or 50 sub-agents in the United States, 20 of whom are in New York. Found some boxes of pills which were spurious, at a shop in Dedham; knew them to be so by the imperfect imitation of the labels.

Cross-examined—am not a licensed physician or surgeon — was in the British navy as assistant surgeon 3 years, with 4*s* 6*d*. per day for pay. Published the book shown by counsel, to go with the medicine, explaining its origin and virtues. Have not received from my employers, nor otherwise, except by the public prints, any account of the late trial in York. Did

publish an article in the Vermont Gazette, in reply to a paper by one of the Burlington professors. Have not seen the 'manifesto' of the College in relation to the late trial.

John Pelham, Englishman, examined—know that Morison and Moat claim to be the exclusive makers and owners of the pills, and that their claim is not generally questioned—am superintending agent—visited several places to ascertain if spurious pills were sold, and found them at Brunswick, Saco, Lowell, and other places.

Cross-examined—there are various counterfeits of their pills—three, at least, in the eastern states.

E. B. Coe, Druggist in Lowell, examined—bought several boxes of pills of Palmer, supposing them to be Morisons's —they were labelled and signed like the genuine. Sold one box to Mr Meacham, and one to Mr Schaw and returned the rest.

Randall Meacham—sub-agent for Lowell—bought half gross of boxes of Palmer—said he was agent for Morison, and knew that they did not allow chemists to sell them. A few days ago saw some pills in Palmer's shop. * * *

The Court here adjourned for the night, and in the morning it appeared that the parties had effected a compromise, and wished to stay further proceedings. It was agreed that the plaintiffs should have a verdict, and the defendant incur only nominal damages—each party paying its own costs.

We are disappointed and sorry that the cause terminated thus. This is believed to be the first time that bold and mischievous Empiricism has persumed to appear in the Courts of Massachusetts as a plaintiff, although it has frequently been brought there to answer for its misdeeds; and we indulged the hope that it would be sent out, not only with a defeat, but with such a rebuke, from the bench and jury box, as its remarkable effrontery deserved. A robber, bearing off his plunder, is assailed by a stronger or more cunning rogue than himself, and compelled to relinquish a part of the products of his guilty enterprise—shall he come into court, alleging that his rights have been invaded, and invoke the protection of the laws which he has just violated in the very matter in controversy? With as little propriety, as it seems to us, can a band of foreign agents, hired to perpetuate and extend a gigantic and pernicious system of medical imposition, seek to punish a rival, by appealing to the laws of a commonwealth, which has provided liberally for the scientific education of physicians,

and prohibited quackery by wholesome statutes. The policy of our legislation on this subject, although of a negative quality — denying to empirics the right to collect their charges by law — is, nevertheless, sufficiently emphatic in its disapprobation of all such proceedings, and a fair application of the principle of these statutes, to the Hygiean case, would have taught the plaintiffs, that our laws will not protect men in transgression, nor guarantee to them the possession of an exclusive privilege to dupe the public and pocket their money. This wholesome lesson would undoubtedly have been taught them by the result, if the cause had proceeded, and the defence, conducted with the usual ability of the gentlemen engaged in it, had been founded on the lawless character of the traffic, which they are attempting to monopolise. But the 'Sole Agent,' *Dr* Moat, wanted no such justice as this. Neither did he want, chiefly, the money claimed for damages—for the facts alleged as constituting the trespass, had been sufficiently proved, and his 5000 dollars would have been forthcoming, if his action had been well founded in law, upon a faithful application of the principles involved in the suit. The difference between the defeat and exposure, which he foresaw, or was advised, would attend a thorough trial of the cause, and the apparent triumph he would secure in a verdict returned on a partial hearing of it, was worth more to him, than five or fifty thousand dollars. The defendant, on the other hand, who had no special interest in establishing the principles of law, which the courts of Massachusetts would apply to such a case, neither intending nor desiring to interfere with Moat's traffic any further, and probably ashamed of having participated in such ill gotten gains at all, was willing to avoid the expense and trouble of further litigation, and to give the plaintiffs the advantage which such a termination will give them. And assuredly the 'Sole Agent' and his host of subordinates will improve this advantage, to the utmost. Already a respectable newspaper in the city, which should not allow itself to be the vehicle of loose and incorrect statements respecting our judicial decisions, contains a short notice of this case, evidently prepared for effect, and concluding with the assertion that the verdict had 'fully established the rights contended for by the plaintiffs, in the Commonwealth of Massachusetts,' and the false impression which this assertion conveys, will be diligently circulated, to give the color of law to their impudent pretensions. But it is not yet true, nor do we believe it ever will be, that any court in Massachusetts, has solemnly decided

that Morison and Moat, two arch-quacks and pill-mongers in London, have any exclusive privileges, as such, in this commonwealth. It is true, indeed, that their agents have not yet been called into the tribunals here, as they have been elsewhere, to answer for the mischievous, and even fatal effects of some of their nostrums upon credulous persons, who are deluded into the purchase and use of them,— and this is the utmost of legal immunity or privilege which they do, or ever will enjoy in this State.

Although we have observed, with regret and indignation, the extensive impositions which have been practised on this community, for several years, by the emissaries of the '*British College of Health*,' we have generally forborne even any expression of disapprobation; knowing how prone people are, to impute sordid and unworthy motives to physicians, whenever they attempt to expose or suppress quackery. But the late trial having brought the subject under public consideration, we felt bound to communicate to our readers what we believe to be a true view of the termination of the suit, and of the claims of the parties.

The most pompous part of the machinery, by which the Hygeian imposition is sustained, is its constant reference to the 'British College of Health.' It appears from the testimony of Moat, that this vaunted 'College,' has neither Charter, Professors, nor Students, but consists of a great building in or near London, which is the manufactory of the Hygeian pills, and the residence of these two proprietors. This is the vaunted 'College,' which uninformed persons cannot but mistake for a scientific institution, provided with learned and worthy men, competent to give an acceptable recommendation to anything they should undertake to sanction. The witness indeed added, that his Father and Mr Morison did sometimes deliver 'lectures;' but was not questioned respecting the subject of them. We presume they are essentially the same, as the essays which have emanated from this 'College,' and constitute a volume entitled 'Morisoniana,' which consist of illiterate, unmeaning stuff, on subjects of which the writers are, of course, as ignorant as the inanimate part of 'the college,' together with the most vulgar abuse of Hunter, the Bells, Cooper, Lawrence, Elliotson, and other such men, who by the improvments they have made or suggested in the healing art, deserve the lasting gratitude of the human race, and whose memory and characters should be protected against such villainous assaults, by the same laws which protect the lives of their

fellow citizens against the pernicious nostrums of their common authors.

Still more reprehensible, although less imposing than the 'College humbug, is the deception practised in the alleged composition of the 'Hygeian pills.' Appealing to the well known prejudices which exists, to a greater or less degree, among all classes, against the employment of murcurial medicines, these pills profess to contain nothing but vegetable substances. But the fact is quite otherwise with regard to a part of the boxes. More than one physician, in this city, has found patients laboring under *murcurial salivation*, from the use of some of the genuine '*vegetable universal specific*' purchased of one of the 'sole sub-agents.' Since the trial which has occasioned these remarks, one of the most accomplished and candid gentlemen in the profession, has assured us that he has witnessed two cases of this kind, in one of which he judged, from the erythematous condition of the fauces and lips, attending the pthyalism, that the ingredient must have been one of the most austere and corrosive forms of the mineral. The same effrontery, which alone can uphold the Hygeist, in the constant utterance of this dangerous deception, will doubtless prompt a flat contradiction of this exposure of it. But the physiological test cannot be shaken by the assertions of any man, or number of men, however solemnly or impudently made, and murcurial salivation is too special a phenomenon, to be mistaken by any respectable physician. Probably the corrosive substance, whose effects were noticed in the case just referred to, was the fatal ingredient in those 'Hygeian Pills' lately taken by an individual in England, whose sudden death was the subject of judicial investigation, and was attributed, by the verdict of the tribunal, to the felonious administration of some active poison, in the 'safe vegetable universal medicine.' We fear that some such tragical event must happen in this country, before our citizens, will be awakened to a just sense of the deception and danger of the 'Hygeian' quackery.

Effects of the Law Legalizing Anatomy.

[For the Medical Magazine.]

The difficulty of obtaining subjects for dissection, has always been an effectual bar to the study of practical anatomy, in this State, and particularly in the country towns.

The late law allowing to physicians the bodies of all unclaimed paupers, which many feared would be, in the country at least, inoperative, proves, on the contrary, both in its theory and in its application, the willingness of the people, that our profession should avail themselves of the best means of usefulness. This was strikingly illustrated in this town in the last summer.

In July, Thomas Mac Keag, while waiting in our jail, for his trial for the murder of one of his friends in a drunken frolic, committed suicide by cutting his throat. His friends refused to have anything to do with his interment, and he was to be buried at the public expense. We applied for his body, in due form of law, in compliance with which, he was delivered to us for dissection. The body was removed to an unoccupied shop within fifteen or twenty rods of the public street, in the centre of the village, so near that every body could come in without trouble; and so much out of the way, that no one need see the work, unless he voluntarily turned his steps. It was known throughout the town, and was the common topic of conversation among the people, that we were dissecting there. The doors were thrown open, every body came to see us, and some from the distance of several miles; all seemed glad that we had this opportunity, and hoped we would make the most of it. As fast as we dissected, we cut off the soft parts, put them in a barrel of strong brine, where they were kept without putrefaction until all was finished, when the remains were poured into the coffin and decently buried according to law. Notwithstanding this was done in the midst of a populous village, in as public a place as could well be for this purpose, and was at first visited by some hundreds, until their curiosity was sated, and talked of by all the town — still there was not a shadow of any opposition nor even a murmur of dissatisfaction, except from a good lady in the immediate vicinity, who feared the dissection would breed the cholera: on the other hand, there was a marked satisfaction that the law allowed this course, and a congratulation both for us and for themselves, that we could thus better fit ourselves

to be useful in our profession. Such is the change in the public feelings, and the excellent effects of the law legalizing anatomy.

Post mortem Examinations.—Not the least cause of this favorable change in public opinion here, is the frequency of post mortem examinations, which for years have been obtained, and which we doubt not might prevail every where, if the same judicious management were practised as has been in this place by the older physicians. There is inherent in the breast of almost every one a repugnance to the permitting any injury to the body of a friend, and at first view, he is horrified at the thought of the apparent cruelty and disrespect to the deceased; so that the bare mention of the knife is received with disgust, and we have experienced, in another section of the country, this aversion carried so far as to exclude a physician for a time from professional business, and it has been made use of by the crafty and unprincipled to keep up a popular odium against rival medical practitioners.

But there is another principle inherent in the human constitution, equally if not more powerful than the respect for the body of the dead—that is *curiosity*. Every physician has been repeatedly tried by the frequent and vexatious inquiry of, 'what is the matter? what is the cause of the sickness? and often we are compelled, when we had asked ourselves these very questions, and could find no answer, to give them a vague and general response which was satisfactory to them, but not to our own minds. At every turn of the disease, whether for better or for worse, this same curiosity again starts out with new questioning, to know why the change has taken place—and is again as easily satisfied because they are conscious that they have applied to the best authority for information. When death takes place, the same desire of knowledge prevails, and knowing that we are but the more scientific and practised conjecturers of the recent causes of disease; and that other proof can now be obtained beside our opinion, they wish for the demonstrations, that the mystery may be revealed, and their curiosity completely satisfied. In most cases, unless the people have been much accustomed to the thought of these operations, they will not propose the matter — but they will receive gladly the proposal from their physician and not barely give a willing consent, but even seem glad, that their hidden wishes are anticipated. By such means these examinations may be obtained in any town, however strong the prejudices may be to the contrary, how-

ever odious or unheard of the practice. The cases that seem extraordinary to the people may be first selected, and then as every one is fond of considering the case of his own friend or his own child, a remarkable one, he feels that his physician acknowledges his opinion, by wishing to pursue an extraordinary course concerning it. Thus one case after another may be obtained until they are no longer uncommon, and by their frequency the people come to consider a post-obit examination as one of the things expedient and desirable, if not essential to be done, and then of their own accord, ask as is often done here, that the attending physician should now ascertain the cause of the death; and when once the public feeling is set this way, we have no farther labor, and such examinations will become a matter of course after death. The young physician should have this encouragement before him, so that however great may be the obstacle to this practice in his first setting out in a new place, yet he may certainly change the popular notions, and at last have that flow voluntarily into his hands, which he now thinks is obstructed by insurmountable obstacles. E. J.

Concord, Oct. 1834.

Thoughts on Quarantine and other Sanitary Systems.

By Charles Caldwell, M. D.

In a former number we announced the decision of the judges of the Boylston prize questions, which gave to our respected friend of the Transylvania School, another acknowledgment of his excellence as a professional essayist. The dissertation is now in press, with the title above recited, bearing the motto, '*Veritas atque utilitas antiquitati preponendæ sunt*,' and will soon be given to the public. We have been indulged with a perusal of the sheets, from the printer's table, and present our readers the following extracts, in anticipation of the treat we can promise them, in the complete essay. It is throughout a masterly discussion of a most important question, aiming to es-

tablish practical views of the subject, and full of the boldness and spirit which distinguish the medical writings of its author.

His introduction is as follows. 'Considered in relation to the matter which it comprises, and in its bearing on the interest and welfare of man, this is the most important question belonging to the science of Medical Police. Nor is it, perhaps, in these respects, surpassed by any one connected with medicine. It forms, therefore, a theme well fitted for discussion, under the auspices of a public institution, established for the promotion of professional knowledge. Not restricted to individuals or circumscribed communities, its limits are already commensurate with the concerns of all commercial nations, and may become so with those of the whole human race. It involves, moreover, in nearly an equal degree, health and life, liberty, property, and sound morals — boons, which give to human existence its chief value, and its only charm. In fine, there is scarcely, in the whole range of civil society, an interest or immunity exempt from its influences. It is worthy, therefore, of a thorough examination. Nor can such a scrutiny be either simple, brief, or easy. It must embrace principles of great extent and importance, with no small amount of detail, in illustration and proof of them.

As it will shortly appear, of necessity, that I am no friend of Quarantine Laws, in their present form and condition, I may as well avow it now. Not only do they seem to me to be founded in error and superstition; their arbitrary principles and unrelenting spirit pronounce them a relic of barbarous times. In these respects, nothing in the history of despotism can surpass them. Though professedly intended for the benefit of man, they are strangers, within their sphere, to human right, and human sympathy. To say that they make sport and food of the sufferings and misfortunes of man, would scarcely be extravagant. They may, and often do, prohibit at pleasure, during indefinite periods, and under heavy penalties, all forms of business, and, as far as they can, of social intercourse, whether public or private — invade personal freedom, by confining those who become obnoxious to them to their own dwellings, or in places worse than common prisons; assume the right to destroy property, to the ruin of its owners, on mere supposititious ground; and have been frequently carried to the taking away of life. To finish the picture, the

officers intrusted with the administration of them are too generally as unfit for their duties as ignorance and prejudice, cruelty and the pride of station can render them. Though these remarks do not apply to our own country so strikingly as to others, they, notwithstanding, apply so far to it, as to amount to a serious evil, not to call it a national disgrace.

In a brief history of Quarantines he says — 'Quarantine institutions are of Italian origin; and, as already mentioned, were first founded in the fourteenth century,— a period memorable for ignorance and gloomy superstition. The science of nature being scarcely yet in embryo the medical notions of that date are of no value. This we learn from the works in medicine, that were then published, even by the most distinguished physicians, as well as from authentic histories of the time. Astrology and fanaticism, with their entire brood of dreams and fantasies, were then in their zenith; and the influence of the celestial bodies, the immediate finger of Heaven, the ministry of angels, or the craft of witches and evil spirits, was looked to, as the source of almost all that was extraordinary. Nor did ignorance fail to render extraordinary and wonderful *then*, many things that are familiar and common-place *now*. Two of the strongest features of the age, were a belief in the marvellous, and a want of knowledge of the laws of nature.

Of the history of the belief in pestilential contagion, but little is known, for the space of a century after its origin. We are informed that systems of Quarantine were established in Genoa, Milan, Venice, and other parts of Italy; and there our knowledge of the matter ends. The medical writers of the day, say but little on the subject. But, in 1545, the belief received a fresh impulse, and an accession of strength, to which it had been previously a stranger. In that year, Pope Paul III. convoked reluctantly the Council of Trent. His reluctance in the transaction, arose from the fact, that, in Trent, his authority was less despotic than in almost any other place. Anxious to remove the Council to Bologne, where his supremacy was absolute, he was not slow in contriving measures for the accomplishment of his purpose. A fever of a pestilential character was prevailing in Trent, at the time of the assembling of the Council. Availing himself of this circumstance, the Pope caused it to be proclaimed, that the disease was *contagious*, and therefore dangerous to the health and lives of the fathers, whom he had called together, and

for whose personal welfare, no less than their spiritual, it was his duty to provide. In this proclamation, he found no difficulty in inducing physicians and others to concur; bribery, and promises, and threats, united to his own asserted infallibility, being the arguments he used. A Committee of Inquiry, composed of prelates, was formed by Cardinal Monte, an artful and distinguished ecclesiastic, who was deep and earnest in the interest of his Holiness. Before this right reverend and venerable body, Fracastorius, Physician to the Council, and many others, being solemnly examined, testified to the correctness of the Pope's opinion, and the justness of his fears for the assembled dignitaries of the church. The consequence of this manœuvre was threefold; the Council was removed; his Holiness gained his end; and the belief in pestilential contagion was established *by the authority* of the church, which, at that period, was, by most persons, deemed identical with *divine* authority! Soon after this event, Lazarettos were built and systems of Quarantines established in Naples, Leghorn, Marseilles, and other seaports of Europe, where no scheme of the kind had been previously thought of. Thus, by a selfish juggle of a set of churchmen, whose ignorance of the matter submitted to them, it would have been difficult to increase, were a medical creed, and a corresponding code of sanitary laws imposed on Christendom, which, by giving the stamp of sanctity to error and superstition, have retarded the progress of knowledge, destroyed millions of human lives, wasted hundreds of millions of property, and produced, through other channels, incalculable misery. And, as already mentioned, the scheme of protection then devised, has descended, with but little alteration, to the present time. It has been sustained by precedent and authority alone. Truth and science have afforded it no support. On the contrary, it will appear, presently, that they are hostile to it.

To exhibit somewhat of the extraordinary character of the testimony, on the authority of which the right reverend Committee of Prelates assembled in Trent, and ratified the belief in pestilential contagion, it may not be amiss to recite a few of the facts that were submitted to them, by some of the most enlightened of the witnesses examined. They were as follows: —

"A fur or leathern cap, worn *thirtyfive years* previously, by a person infected with pestilence, communicated the disease to *twentyfive* Germans, in Verona, and destroyed them all!!"

"A feather bed, on which a pestilential subject had lain, on being shaken up, *seven years* afterwards, in Wrateslaw, produced a plague, of which nine thousand and five hundred persons died!"

"A *rag*, which had been infected *fourteen years* before, on being thrown out of a window, sent its plague-poison abroad, and produced frightful mortality!"

"A young man introduced his hand into a leathern trunk, which contained an infected *cobweb*, and was *immediately* attacked by pestilence! The web inflicted a plague-sore on him, *the moment* he touched it!"

On the authority of these tales, and many others equally incredible, was a judgment passed, and a code of laws established, which the accumulated experience and wisdom of centuries have not yet set aside. Nor are there wanting, even now, individuals of distinction, who still endeavor to maintain their truth, and perpetuate their influence, by narratives no less extravagant and futile — the product of fiction and a love of the marvellous. In proof of this, the following stories may be added to those already recited.

A brother of Julien, one of Napoleon's general officers, died of plague in Egypt; and we are seriously told, that he caught the contagion *by taking a pinch of snuff from a box*, out of which one had been taken some time (not less, I think, than a week) previously by an infected soldier!

"A rag which had been used to wash a plague-sore, was thrown into the street, some days afterwards, a hog took it into its mouth, and went immediately into convulsions, and died of glandular swellings!"

The two following stories are copied from a small volume, lately published in London. The author of the work, a member of the profession, of no common rank, gravely relates and firmly believes them.

"In Marseilles, long after a visitation of the plague had passed away, some persons, dragging out of a close corner, ropes, which it had been forgotten were once used to bury the dead, were attacked by the complaint; and on that occasion, *ten thousand* persons died."

"At Venice, a blanket belonging to a person who had died of the plague, *seven years before*, reproduced the disease." To these, hundred of other fantasies of a similar cast might be subjoined; but, for the credit of the profession, I shall pass them by.

In the course of a long and ingenious argument against the contagiousness of plague, and in favor of its likeness or even identity with yellow fever, he says : —

'Closely allied to the last is another consideration, which testifies strongly to the non-contagious nature of plague. No sooner have the ravages of that complaint terminated, in Constantinople, Grand Cairo, and other parts of the east, than, without undergoing the slightest lustration, the houses just depopulated by it are repeopled with fresh inhabitants. By these new tenants, the beds of the deceased are slept on, without cleansing, their clothes worn, many of them without being washed, their mats sitten on, and other articles found in the dwellings used as customary — all with *perfect impunity*. Not a case of the plague results from the practice. Were that malady contagious, these occurrences would be impossible. Nothing can reconcile them to such a quality in it. Yet, though those articles of bedding, clothing, and furniture, cannot, when *freshly* imbued with the poison, produce a single case of plague, contagionists maintain, that, even *years afterwards*, they may be carried hundreds of leagues through the air, by land or water, and generate the disease in distant places, to the devastation of cities, and the terror of nations! A view of the subject so utterly at variance with reason and common sense would not deserve to be seriously treated, if it were not for the immeasurable mischief it has aided in producing. But its influence cannot continue much longer. It is the product and nursling of ignorance and credulity, and must vanish under the light of knowledge, like its kindred phantoms under that of morning.

The preceding is another point of strict resemblance between plague and yellow fever. Houses depopulated by the latter disease, as well as by the former, are, after its termination in the autumn, occupied immediately, *uncleansed*, by new tenants, with perfect impunity.

It is now acknowledged, by all physicians conversant with it, that yellow fever is of the same family with common bilious fever, and arises from the same source. It is the product of malaria, formed by dead organic matter, in the process of dissolution. So is plague. Every fact of any moment, connected with the origin, progress, decline, and termination of that complaint, is confirmatory of this. Indeed, as already

intimated, a few incidental symptoms excepted, its analogy to yellow fever is so perfect, as to amount to identity, slightly modified. Certainly no radical difference between the two diseases can be shown. It is believed therefore, that nothing cant throw more light on the production and propagation of plague, than a summary of this analogy. Hence, contrary to my original intention, I shall furnish one, as brief as I can render it, consistently with perspicuity. Though many of the elements of it have been already exhibited, in a detached condition, it is thought that a condensed view of them, united and supporting each other, may be more conclusive.

As already stated, plague and yellow fever are the native growth of hot climates, and of the hot season of temperate and cold ones. Only under peculiar circumstances, to be referred to hereafter, do they ever prevail, when the weather is cold.'

COLLECTANEA.

Factory Commission.—The Medical reports in this important inquiry seem to have been the result of very faithful and candid examination ; and present many curious, as well as unexpected results. The Medico-chirurgical Review has the following remarks on them. — 'A careful perusal of these Reports, as well as those of the Civil Commissioners, has left the conviction strong upon us, that factory-labor, more particularly in cotton and flax mills, tends not a little to deteriorate both the mind and body in young persons so employed; but certainly not to the extent that Mr. Sadler, Mr Oastler, and their school would have us believe. Much that is unfavorable to health and to high physical development of the human animal is common to all classes of the community, whose bodily labor is from their infancy the only source of daily subsistance. It is therefore obviously wrong to attribute all the evils found attendant upon any one class to the circumstances in which that class differs from all others. Truth can be found only in the balance of experience. But can we wonder that enthusiastic philanthropists should have overlooked, or selfish agitators availed themselves of this source of error, when we find certain leading medical men in London (appealed to by the

council of the nation) asserting that distorted and unproductive pelves in the female, must be the frequent consequence of factory-labor? The laws of physiology too are quoted by these gentlemen, and accepted in proof of this, as it now appears, most unfounded assertion. What will these high medical authorities say to the stubborn fact, that not one distorted pelvis has been found in all the factories of Great Britain — that abortions and difficult labors are rather less frequent amongst the females of those establishments than amongst those of the other working classes — that the reproductive power is but little, if at all deteriorated? What can they say, in candor, but that, atthe time they gave these oracular opinions they had never seen the inside of a factory, nor ever examined the forms of those employed there? But let that pass. There is quite enough of evil without it in the present factory discipline of this country — that vile system which, in every case, converts the chubby playful boy, and the tender interesting girl into so many little locomotive steam engines, with scarcely respite enough allowed from their labor to take in as much of the coarsest fuel as will keep up their moving power. When we find the twisted femur, the cumbered knee, the stunted, degraded form, frequent and direct consequences of this cruel system; whilst the youthful mind, which ought to be a garden of budding flowers, is not only left uncultivated but suffered to rakle overgrown with foul weeds, surely it is time that reform should come, and we are rejoiced to learn that reform has come. May it prove as effectual as the Reports upon which it is founded are honest and unexaggerated.

TO CORRESPONDENTS.

Dr Pierson's paper is received, and will appear in our next number.

Dr J. H. Flint's remarks on the treatment of Polypus Uteri, shall appear in the next number. We hope the gentleman will make the Magazine the vehicle of the more extended publication he is preparing on the same subject.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."— WILLIS.

DR. STOKES, ON ELECTRO-PUNCTURATION AND MAGNETISM IN PARALYSIS, RHEUMATISM, &C.

[From the London Medical and Surgical Journal.]

IT has been lately proposed to employ the stimulus of electricity and galvanism by transmitting it directly to the muscles of the affected limbs by means of needles, which are to be inserted into different parts of paralysed extremities, and which are intended to act as conductors for transmitting the galvanic influence. This has been termed *electro* or *galvanic puncturation*, and forms an excellent mode of applying the stimulus of galvanism. I have made many experiments as to its effects, to which I shall briefly direct your attention.

The first thing to be considered is the manner of its application. — The following is that which I use at the Meath Hospital: — Having procured two fine sewing needles, your first step will be to take the temper out of them; for, if you employ them in the tempered state, you will run the risk of their breaking in the flesh, and this would be very disagreeable. You can easily take the temper out of them by holding them in a candle until they become red hot, and then letting them cool gradually. The next thing is to place a head which will remain

firm on the needle, and for this purpose you pass a small portion of thread through the eye, and then cover it with a bit of melted sealing wax. Having thus formed a head for the needle, you sharpen its point, and polish it by the emery pincushion, and the sharper it is the better. There is nothing more simple than to introduce the needles. You make the part of the skin tense with your finger and thumb, where you intend to introduce them, and, placing the point of the needle perpendicularly on it, you press it downwards in a slanting direction, using, at the same time, a rotatory motion, and thus easily pass it in; when you have pierced the skin and fascia, there is no difficulty in introducing it into the muscular fibres. The distance between the needles must be regulated according to circumstances. You then proceed to send the galvanic fluid to the part, and, for this purpose, the best mode is to employ a small galvanic battery with a limited number of plates. If you have plates of from two to three square inches you will find that from fifteen to twenty of these, in a state of ordinary action, will be quite sufficient, particularly in the commencement of the treatment. It is a curious fact, that the intensity of the shock is increased to an extraordinary degree by means of the needles. A battery which, in the usual manner, would not communicate any shock, will, when used with the needles, give a violent one, and communicate such a stimulus to the nerves as will throw the whole limb into violent spasms, and cause a copious perspiration to break out over the body. I have seen very great effects from a feeble battery in this way, and it would appear that this is the result of the *direct* transmission of the galvanic influence to the muscular fibre. In most cases a perspiration is brought on, the limb convulsed, and sometimes the whole body is thrown into spasms. As an illustration of the power of the battery when used in this way, I shall mention the following case: — A patient, who was under the care of Mr. Hamilton, labored under amaurosis; he was anxious to try the effect of galvanism, and with this view inserted one needle in the upper part of the back of the neck, and another over the orbit, so as to direct the trajêt of the fluid across the base of the brain. He intended at first to use a small battery of twentyfive plates, but it struck him that even twentyfive might be too much. He made the experiment with three pairs of plates, and, the shock being given, the patient, to his astonishment, fell back as if he had been stunned by a violent blow on the head, and remained for nearly a minute in a state of insensibility. In other cases too, where the galvanism was ap-

plied in the vicinity of the head, I have found that severe headache, giddiness and even a stiffness of the muscles of the face, were produced; all showing its powerful action on the nervous centre.

Some singular circumstances connected with this subject, were observed in the Meath Hospital. It was found that after a certain number of shocks had been communicated to the parts, when you came to withdraw the needles, there was a very remarkable difference in the ease of removing them. The needle through which the positive galvanic influence had been transmitted, was found to be strongly fastened in its situation, while that, to which the negative pole had been applied, slipped out with the greatest ease. This result was constant. In some cases, when half a dozen shocks or so have been given, the extraction of the positive needle has been only accomplished with considerable pain to the patient.

It has been suggested by a distinguished scientific friend of mine, that this results from the coagulation of albumen at the positive pole. Mr. Hamilton, however, who performed most of the operations for me, thinks that the true explanation is the paralysing effect of the negative pole on the muscular fibre, while the positive needle is firmly grasped by the increased contraction. Further researches are necessary on this point. Another fact connected with this subject is, that when the needles have been inserted into a large muscular mass, the positive needle is powerfully retracted, and carried, as it were, into the muscles. In one case, where the needle was inserted into the lumbar muscles, in a patient laboring under sciatica, more than one-twelfth of an inch of it was drawn in at each shock; so that, after a certain number of shocks, it passed up to the head. This is one reason for using the sealing-wax head, in order to prevent the complete passing in of the needle.

With respect to our experience of the value of this mode of employing electricity or galvanism, I have to remark that, if galvanism or electricity can be of any use to paralysed limbs, this is one of the best modes in which it can be applied. The apparatus is simple, can be prepared in a moment, and does not depend on the state of the weather, like the ordinary electrical machines. There is another advantage, also, it is not so likely to excite alarm in the mind of the patient. We have employed it in several rheumatic and paralytic cases in the Meath Hospital, but have not as yet been able to say that decided benefit has accrued from it to the majority of the patients on whom it has been tried. This is more particularly true with respect to paralytic patients; in the rheumatic

cases we have found it more beneficial. In a remarkable case, where the deltoid muscle was paralysed and atrophied from some affection of its nerves, Mr. Hamilton tried it for a fortnight without any good effects. In a case of senile amaurosis, its effect was to produce flashes of light before the eyes, lachrymation and contraction of the pupil, but, after a fortnight's trial, there was no improvement in the sight. We have had, however, distinct and unequivocal proofs of its value in one case of paralysis of the muscles of the face, which had all the characters of that described by Sir C. Bell, as resulting from an affection of the seventh pair of nerves. I have not the notes of this case at present, but shall bring them down and lay them before you to-morrow. I may, however, observe, at present, that this patient had been for a long time laboring under an affection of one side of the face, and had used a variety of remedies. Those principally employed were stimulating liniments and the internal use of strychnine, from which he derived some slight benefit; but the application of the galvanic fluid, in the way I have mentioned, was followed by decided and rapid improvement. Indeed, from the time it was first applied, the patient recovered rapidly, so that in a very short time all the deformity of face disappeared. Now the value of the application is to be estimated in this way. Here we have a case of paralysis of a local nature, and not depending upon any disease of the brain; in this case the galvano-puncturation was tried, and found to be most beneficial. The conclusion, then, as far as a single case goes, is that this mode of treatment is best adapted to the form of paralysis just mentioned, in which we find an affection of some of the muscles remaining after the original disease of the brain has been removed. The same observation, I need not tell you, applies to all other remedies which are employed for the purpose of local stimulation.

While on this subject I shall take an opportunity of briefly drawing your attention to the use of magnetism in certain cases of nervous disease. Here let me be understood. I am not going to lecture on *animal magnetism;* it is at present a theme unsuited for the practical physician; no one more firmly disbelieves, no one more thoroughly despises, than I do, the countless absurdities which have emanated from the imaginative disciples of animal magnetism. But as in almost every human hypothesis there is a fraction of truth, so in the doctrines of animal magnetism there is, perhaps, something which may not be entirely visionary.

That a magnet should act on the human body is neither extraordinary nor incredible. You know that electricity, and its modification galvanism, have a powerful influence on the system; and modern researches have shown, that there is a close connection, if not an absolute identity, between electricity and magnetism. Now, on this subject of magnetism the researches of some eminent men have been, latterly, employed, and the results of their labors have been received by some with an undistinguishing credulity, and by others with unphilosophical scepticism. One of the principal things which has prevented medical men from entering on this subject is, that many persons have confounded the results of magnetic action on the human body with the absurdities of animal magnetism and metallic tractors. There is, however, I need not repeat to you, an essential difference between them. In the Meath Hospital I have lately made a number of experiments, with a view to ascertain the effects of a powerful magnet on the human body. The magnet which I used was one of considerable power, being, in its highest state of action, capable of supporting a weight of more than twenty pounds. Now, in almost every instance where this instrument was used we found that, when brought near to sensible surfaces, phenomena were produced which were very similar indeed to those of electricity. These phenomena also appeared in so many cases, and with such a remarkable constancy, that they could not be accounted for by any supposition of accident. We have applied it in cases of rheumatism, sometimes to a healthy part of the body, sometimes to the part affected. In one of these cases the application of the magnet was followed by a very rapid subsidence of the morbid symptoms, and the patient got well in a few days. Here let me remark, that there is no one more opposed than I am to the publication of the result of a single case as a proof of the success of any particular remedy; and, in putting forward this case, I do not wish it to be received as an instance of a decided cure of rheumatism by magnetism. The only reason why I quote it is, because in other cases of rheumatism we had distinct evidence of the influence of the magnet to a greater or less extent. The patient, a stout man, of good constitution and in the prime of life, was brought into the hospital for an attack of rheumatism in the back and left shoulder, which had come on after exposure to wet. The first seizure was three days before admission. When brought in he had severe pain in the back and shoulder,

increased on pressure ; he could neither elevate his arm to his head nor could he bend the head towards the shoulder without great difficulty and suffering. The value of this case consists chiefly in this, that except using the magnet there was no other remedy employed ; if any other medicinal agency had been used it would have been difficult to attribute the merit of the cure to magnetism. I applied in this case the large magnet to the shoulder within a short distance from the skin. In about half a minute the patient remarked that he felt a kind of pricking sensation immediately under the magnet ; this was succeeded by a feeling of heat in the part which became increased by continuing the application, while at the same time the pain was sensibly relieved. The sensation of warmth continued in the shoulder for about ten minutes after the magnet had been removed, and the patient declared that he received great benefit from the application. On the following day the magnet was applied again with precisely the same results ; the same thing was done on the third day, when the pain was very much reduced and the arm became more moveable. On the fourth day the mobility of the limb was increased, and he could bend his head in the direction of the shoulder with very little inconvenience. On the eighth day the power of motion was restored, the pain gone, and the patient left the hospital quite well. I have heard nothing of him since ; but if he had not experienced permanent relief it is very probable he would have returned again, for he seemed quite pleased with his treatment. If this was the only case in which the magnet had been employed it would prove nothing either for or against its use. It might be said, that the cure in this instance was the result of keeping the patient in a warm bed, and that any good supposed to be effected by the magnet might be attributed to the influence of imagination. But to this it may be answered, that the sensations observed by this patient were *exactly the same as in others*, each having noticed the peculiar pricking sensation in the part to which the magnet was applied and the subsequent feeling of warmth. Again, it is to be remarked, that although the symptoms in this case were severe, the cure was extremely rapid ; and when you recollect the obstinacy of most affections of this kind, you must allow that a week was a very short space of time for its accomplishment.

The following is another equally interesting case. A woman was admitted into the Meath Hospital, laboring under

paralysis of the right side of three weeks' standing. The history of her case was that she had fallen into a state of mental despondency, after the death of her husband, who was her only support; she then got symptoms of derangement of the stomach and hypochondriasis, followed by an attack of paralysis, which deprived her of the power of using one side. On examination, we found that, as far as motion was concerned, the paralysis was not complete, but that there was a total loss of sensation in the side affected. I was curious to observe what the effect of the magnet would be, and accordingly applied it to the spine, moving it upwards and downwards along the cervical and dorsal regions, at about half an inch from the surface. After it had been applied for a few seconds, she remarked that she felt a sensation "of wind" passing over the left shoulder but not over the right. Observe it was on the right side of the body that the paralysis existed in this case, and you will also recollect that it was chiefly a paralysis of sensation. Now, it is quite contrary to chances that she should have described it in this way, if she had not really felt it in this situation. The action of the magnet was naturally felt on the left, which was the sensible side, for, on applying it to the opposite or paralysed side, she said she no longer felt the sensation of "the wind" During the operation she saw the instrument, and if disposed to draw upon her imagination for a description of her sensations, she might say that she felt the aura on the paralysed side; but this was not the case, for she stated that it was no longer perceptible when the magnet was moved from the sound to the paralysed side. In this case, I must tell you, that magnetism was not the sole remedial agent employed, for she had been also leeched and blistered. She was admitted on the 12th of August, and on the 17th of the same month the power of motion in the upper extremity was so much increased, that she could grasp objects with force, and place her hand on the top of her head with facility. On this day, after having applied the magnet, she immediately exclaimed that she felt the wind for the first time over the right shoulder, and, on examination, it was found that sensation to a certain degree had returned to the right side, and here you will perceive that the first manifestation of the return of sensibility was denoted by her feeling the magnetic influence in the paralysed side.

I shall not take up your time any longer by detailing cases; it will be sufficient to state that it was used in many other instances of a similar kind, and in all with the same result.

Each patient described the same sensation with very little variety; in some, it consisted in a feeling of pricking or tingling; in others, of an *aura* passing over the part. Some stated that they felt a sensation of warmth in the part some time after the magnet had been applied, and some a kind of suction, as if the skin was drawn towards the magnet. When it was applied over a very sensible or a blistered surface, the patients felt the pricking sensation to amount to pain, and the feeling of warmth and suction was proportionally increased. I have also to observe, that it was employed on a set of patients, the majority of whom were totally ignorant of its nature and effects, and yet it is very remarkable that there was an almost universal accordance in their descriptions of the sensation produced. It has been stated by some writers on the subject, that the sensations differ according to the pole of the magnet employed. This statement does not accord with our experience, for in every one of our cases the sensation was the same, whether we made use of one pole or the other. As far as our experience goes, it is, I think, fair to conclude that a very perceptible influence may be produced on the human body by the application of the magnet; it is another matter to ascertain how far it may be rendered available as a therapeutic agent. The cases in which I think it might be employed with advantage, are cases of nervous and spasmodic affections and muscular rheumatism. That the sensations described by our patients had an actual existence, and were not the result of imagination, I am firmly convinced.

Illustrations of Pulmonary Consumption.

Illustrations of Pulmonary Consumption — its Anatomical Characters, Causes, Symptoms, and Treatment. 12 Plates. By Samuel George Morton, M. D. Physician at the Philadelphia Almshouse, &c. pp. 176. Philadelphia: Key & Biddle. Boston: Allen & Ticknor.

The author of this book has our hearty good will, if for no other reason, at least for this, that he has made an original and honest contribution to the department of pathology. It is communicated in the right manner to be useful, it is elementary. Our medical writers are apt to err by not considering

the difference between the circumstances of the profession in this country and in the dense population of Europe. A subject which may be perfectly familiar to every physician dwelling in the neighborhood of the large hospitals and museums of London or Paris, and having access at all times to the instructions of distinguished teachers, may need to be explained in an elementary manner, to even the well educated portion of medical readers with us. This is especially true of Pathological Anatomy, which has not, by most of us, been cultivated even in proportion to our slender opportunities. Indeed, in all departments, the most successful teachers have been those who take it for granted, that those whom they address are ignorant of the subject to be discussed, and we feel truly indebted to Dr. Morton for not shooting over our heads, by pre-supposing a greater amount of knowledge than really exists in the minds of his readers.

How much better are we beginning to study consumption now, than in the days of Dr. Beddoes! By fixing the attention upon the anatomical characters of the disease, and upon the physical signs that make known these characters, we are preparing our minds to understand the causes and the means of their prevention and removal. Let us not be too much cast down by the popular medical belief of the insanibility of phthisis. The condition of the system under which the formation of tubercular deposits takes place, may yet be found capable of being modified by remedial agents and change of circumstances, and the removal of these deposits may be capable of being effected, as is that of blood, fibrine, pus, and serum. Nor is this the only answer we would give to the sagacious and self-complacent objectors, whom we often hear sneering at researches into the nature of consumption. 'After all,' is their constant objection, 'what good does it do to investigate this disease, if, when you have determined by exact signs, its existence, you can do nothing for its cure.' Our other answer is, that it is of immense consequence, in a practical point of view, to determine the cases in which consumption does *not* exist, and how can this most valuable negative information be gained, except by obtaining precise and accurate knowledge of the positive signs of the disease?

Dr. Morton begins his book with a short and imperfect chapter on the accidents accompanying pulmonary consumption, or the morbid alteration which frequently co-exist with the disease, but are not essential to it. The most common of

these accidents is pleurisy. Dr. Morton's description of the affection is brief, and applies to its more marked and aggravated forms. A slight pleuritis is an almost constant attendant upon tubercular deposits. This is what might be expected, viewing the tubercles as foreign bodies and sources of irritation. It is rare to find a tuberculous cavity with very thin walls, in which there are not adhesions of the pleura at that part. The history of such cases frequently shows that they have never been characterised by severe pain. A moderate degree of inflammation upon a serous membrane, with but little exaltation of the sensibility of the part, may be attended by effusion of fibrine upon its surface and subsequent adhesion.

Pneumonia gives rise to changes of the thoracic viscera of a more important character. Solidification of the lung is the pathological condition of this affection, and exhibits the different degrees from mere congestion and engorgement to perfect obliteration of the vesicular and vascular textures in grey hepatization. Auscultation is indispensable in the diagnosis of pneumonitis. Dullness of sound on percussion, and obsolete respiration evince the disease several days before the cough, or difficulty in respiration show the trouble to be in the pulmonary tissues. We have known a whole lung to exhibit these phenomena a week before the cough and expectoration, which were eventually prominent symptoms, made their appearance. This affection is, like pleurisy, when in its early stages, very frequently entirely recovered from, even when existing to a great extent. There is a mode of auscultation which we have found useful in the diagnosis of these cases, and which we have never seen noticed. If a lung be solidified from any cause, and the hand be applied to that side of the thorax, the jar communicated to the hand when the patient speaks, will be perceptibly different from that felt on the healthy side, when one lung only is affected, or when the hand is placed on the thorax of a person in health.

The second chapter gives the anatomy of tubercular matter. The aggregation of this matter, secreted in its various sizes, from that of a fig-seed to a cherry-stone, forms irregular masses of various shapes and sizes. These are well exhibited in the three or four first plates. The third plate pourtrays the appearance of what some pathologists dispute the existence, an aggregated portion of tubercular matter contained in a true cyst. We cannot feel sure that Dr Morton is right in this instance, which appears to us like what we have repeatedly

seen, and always considered to be condensed cellular tissue with organized fibrine, created *by* the tubercular deposit, and not pre-existent or cotemporaneous with it.

Dr. Morton believes that transparent miliary granulations are not incipient tubercles, siding with Andral on this disputed point, against the authority of Läennec and Louis. Dr. Morton's description of the formation of tubercular abscesses and their varieties, though short, is well done, and exhibits very faithfully, by reference to the plates, the common appearance of these suppurations. We want a good name to express these cavities. The old term of vomica was a good one, but it has been so long used to express abscess in consequence of pneumonia, that some confusion arises in applying it to consumptive suppurations. Perhaps the word *cavern*, now so commonly employed, is as satisfactory as any, and will be universally adopted.

Chapter third is devoted to the pathology of phthisis. Why is the apex of the lung more prone to tubercular disease than any other part? So true is this fact, that the examination of the infra-clavicular region, is all that is necessary to determine our diagnosis with respect to a tubercle in its advanced stages in far the greater number of instances. Dr. Morton seeks the explanation in the supposed confinement and consequent compression of the superior lobes from the conformation of the cavities which receive them. This explanation does not seem well supported, and being but a mere conjecture, we prefer to adopt one of our own, which is, that the reason of the fact alluded to, is to be found in the effect of gravitation from the erect position of the body. This conjecture receives support from a fact, not yet sufficiently established, but which is asserted to be true, of the tubercular formation in the lungs of quadrupeds, that these formations affect mostly the *dorsal* portions of the lungs, not being more numerous in the apex than in the basillar portions of these organs. Dr. Morton has not gone at length into a discussion of the origin of tubercular matter, and has brought no new facts to enlighten us on that subject, one of the most important in pathology, and one which can alone be settled by long and patient observation. The facts which have yet been ascertained are, in our opinion, too few to establish any of the theories upon this subject. We agree with Dr. Morton, that tubercles are not to be traced to inflammation. To us it appears, that tubercular matter is a product *sui generis*, totally different from any product of inflammation,

and not otherwise connected with it, than that the existence of tubercular matter is often the cause of inflammation in surrounding and contiguous tissues. The doctrine of Broussais, and to which Dr. Morton mainly assents, that tubercles are to be traced to pulmonary catarrh, is quite incompatible with the fact that the two affections should be perpetually existing independent of each other, and it is well known that pneumonitis is most frequently found in those parts of the lungs which are least visited by tubercles, and vice versa.

Dr Morton sums up the pathology of tubercular disease in the following propositions, the two last of which, will be generally admitted, while the first will probably be considered as little satisfactory as the theories of his predecessors.

'1. Tubercles are an altered secretion of the albuminous halitus, proper to the cellular tissue forming the parenchyma of organs.

'2. Inflammation is not necessary to their developement.

'3. The cellular tissue which envelopes and intersects tubercles, sooner or later takes on inflammation and secretes pus; by which process the tubercular matter is eliminated, and an abscess formed.'

In discussing the causes of consumption in chapter four, it seems to us, that our author lays too much stress upon those circumstances which operate mechanically in narrowing the capacity of the chest, and too little upon those modes of life which induce an imperfect nutrition of the body. He deprecates the tyranny of fashion in the matter of tight lacing, and probably most of the faculty would join him in this censure. We must confess for our own part, we are hardly orthodox in our sentiments on the subject of ladies' stays, and cannot but wish that Dr. Morton or some one else, would furnish us with well established facts which may be made to prove that *any* disease among females is fairly to be attributed to wearing stays. Our author's twentyeighth case, cited by him for this purpose, is very far from affording this evidence. Has it yet been fairly made out that females are more consumptive than males? and if it be so, does not their confined mode of life furnish a better solution of the fact than their tight lacing?

In his chapter on the symptoms of consumption, Dr. Morton is particularly happy, and his remarks upon cough, hæmoptysis, pain and hectic, are worthy the attention of the student. We do not think he lays sufficient stress upon emaciation as an incipient symptom of tubercles. It is singularly true in con-

sumption, that unless it be emaciation, which is a symptom common to nearly all diseases of long continuance, there is no symptom uniformly present in all cases, and moreover, that cases occur in the practice of almost every physician of experience, where dissection proves the pathological appearance of consumption, and which did not, during life, exhibit a *single symptom* of the disease. We do not think with Dr. Dewees and Dr. Morton, that in some of these cases in which tuberculous cavities have been found after death, that there *must* have been expectoration, although it was unobserved. It is more natural to suppose that the pus in these cases is removed by absorption.

There is a form of hæmoptysis which Dr. Morton has not well described. In this case the blood is probably thrown out by the exhalents terminating on the mucous membrane, by what Mr. Hunter terms 'active dilatation' of these vessels. It appears to us that this is by far the most common hæmoptysis in all cases attended with inflammatory symptoms.

There appears to be no reason to doubt, that the pain in the thorax in consumption, arises from pleurisies affecting different parts of the serous membrane.

The 'delusive hope of recovery' is a symptom of consumption which has been noticed by most writers. How far is it expedient to enlighten patients as to their true situation? We wish Dr. Morton had expressed his views on this practical point. For our own part, we hold that here as elsewhere, honesty is the best policy. If a patient is not flattered by his physician's feeding this 'delusive hope' by unwarrantable encouragement, he will gradually draw the inference himself, that the disease will be fatal. And when this idea comes gradually into the mind, it is astonishing with what composure the certainty of death is viewed. The effects of a sudden disclosure of this fact are most distressing, and probably the recollection of most physicians can bring up scenes of this sort, which were heartrending. We have witnessed some such as we hope never to see again.

One of the worst symptoms among the rational signs of phthisis, has not received from our author its due attention. This is dyspnœa, or a respiration easily hurried by exercise or conversation. It indicates an extensive deposit of tubercular matter, and affords ground to prognosticate a sudden, rather than a protracted termination of the disease. With how small a portion of permeable lung can respiration be carried on! Dr. Morton quotes from a modern author the assertion,

that if a twentieth part of the lungs remains sound, it is sufficient for the mere continuance of life. The knowledge of this fact serves to qualify our fatal prognostications, and patients who never expect to be restored to health, derive a vast deal of comfort from the indefinite postponement of the fatal issue.

The sixth and seventh chapters are on the complications of phthisis, and would afford opportunity if we had time and space for them, for many interesting pathological speculation. Several of the cases and dissections are of unusual interest, especially case twentyfour, of tuberculous abscess of the lung communicating by a fistulous canal with an abscess on the back. — Case twentyeight, an undoubted instance of partial and complete cicatrization of pulmonary abscess—and case twenty-ninth in which the autopsy exhibited the uncommon appearance of the right lung being free from tuberculous matter in its parenchyma, and the left showing none of this matter in the apex or upper part of the superior lobe. This is an instance of which we have never seen the like, and we do not believe that many examples can be furnished, in which, while extensive tuberculous deposits are found in other organs, and in other portions of the lungs, the apices of the lungs remain free from the disease.

Chapter eighth, upon the physical signs of phthisis, or those derived from auscultation, is very brief. In practising auscultation, we think our author, in common with most practitioners, places too much value upon the mechanical implements employed. In our opinion, the best pleximeter is the fore-finger of the hand which is not employed in percussing, and the stethoscope may be dispensed with to advantage in very many cases, and as satisfactory results obtained by bringing the ear to the chest without any conducting medium. We have noticed that M. Louis seldom uses the stethoscope, and then only when it is impracticable to apply the ear closely to the part on which observation is to be made.

The ninth and concluding chapter of Dr. Morton's work, is on the treatment of phthisis, comprehending the important topics of medicine, diet, and climate, and we think, if our readers have become in any degree interested in the preceding imperfect analysis, they will feel as unwilling as we are, that the important topics treated of in this chapter should receive no more than the slight attention they can obtain in the close of a long article. We will, therefore, defer the review of this chapter to our next number. P.

An Account of a Case of Spasmodic Cholera.

By George Hayward, M. D.

The following case exhibited in a very unequivocal form, nearly, if not all, the symptoms of spasmodic cholera, and it is the only one, which to my knowledge occurred during the past season, in our city or vicinity. It is remarkable too, when we consider the extreme regularity and temperance of the patient in all his habits, his previous state of health, having been entirely free from the usual premonitory symptoms of the disease, and the salubrious situation in which he lives.

The subject of it was a highly respectable clergyman, who resides in a dry and elevated part of South Boston. He ordinarily enjoys tolerably good health, though he has found it necessary to be attentive to diet and exercise. For the two last years he has been somewhat inclined to costiveness, but for a week previous to his attack his bowels had been in a very good state.

On Thursday morning the 14th of August about sunrise, after having passed a comfortable night, he had a copious dejection of a very dark color. He immediately after took half a glass of brandy, but the discharges continued with intervals of about forty minutes, till ten o'clock A. M., when he took the same quantity of brandy, with the addition of a teaspoonful of paregoric. The color of these discharges was not noticed; they were, however, without pain and did not debilitate him. He ate his breakfast and shaved as usual, and afterwards walked out, but the diarrhœa continued unchecked by the second dose of brandy. Soon after taking it he felt some degree of nausea, and at about eleven o'clock began to vomit. There was nothing unusual in the appearance of what was thrown from the stomach.

The vomiting was very frequent, and the dejections much more so than they had been before. In a note to his attending physician he says, that at this time the discharges from the 'bowels had the appearance of rice water, and came from me with such power that I could think of nothing but the operation of a forcing pump in my bowels. I do not recollect whether any urine passed at my first discharges or not; but as early as 9 o'clock A. M. I noticed that my urinary discharges had entirely ceased, and not a drop of urine passed till twelve o'clock on Friday morning.'

Between one and two o'clock he was seized with excruciating pains, which were almost exclusively confined to his limbs. He suffered also from difficulty of breathing, and he said it seemed to him as if the air hardly entered his lungs at all. Soon after this he perceived a buzzing in his ears, and by four o'clock he had become nearly deaf in his right ear. Dr. Stebbins was now sent for and arrived at two o'clock. He found him, he says, in great distress laboring for breath, unable to speak aloud, his face of a peculiar livid hue, his features shrunk and cadaverous, the perspiration standing in cold drops on his forehead, and his pulse scarcely perceptible. He learnt that the only remedies that had been used in addition to those that have been named, were thirty drops of laudanum, sinapisms to his feet and legs, and an enema of starch, with two teaspoonsful of paregoric in it. The vomiting had ceased, and he had but one dejection after his arrival, which was small and exhibited the rice water appearance.

He immediately directed another injection of starch, to which was added four teaspoonsful of paregoric, which was administered without delay. He applied sinapisms to the chest, abdomen, inside of the thighs and wrists, and gave him soon after two o'clock one grain of opium, with a wine glass of brandy, with an equal quantity of hot water. The brandy was continued every half hour for the space of two hours.

Dr. Stebbins states that the spasms, which were slight on his arrival, continued to increase till half past three o'clock, when they were most severe; the extremities became more and more cold and the pulse less distinct, until a quarter past three, when he could not perceive the slightest pulsation at the wrist or in the temporal arteries. At half past three he gave him a pill composed of three grains of calomel, with half a grain of opium. At a few minutes before four I saw the patient. I found him in great distress, partly from the spasms in the legs, and in part from the sinapisms. His voice was husky, his countenance cadaverous and of a livid hue, his eyes sunken, the surface of his body covered with a cold sweat, and the temperature much below the natural standard, though Dr. Stebbins thought that it had risen a little within the last half hour. I could feel no pulse at the wrist; the tongue and breath were cold and the respiration laborious. He made no effort to speak, but it was evident that the faculties of his mind were unimpaired. His distress was so great, that his screams were almost incessant, and were rendered peculiarly painful to the bystanders from the hoarse state of his voice.

The sinapisms to the thorax and abdomen were removed at once, on account of the pain they created, and mild applications were substituted. Two pills, the only ones in the house, each containing three grains of calomel and half a grain of opium were administered, and a drachm of calomel divided into three papers, was sent for. This arrived in a few minutes, and one of the powders, containing a scruple, was immediately given. Half a glass of brandy was at the same time taken. As there seemed every reason to believe that a fatal termination would soon take place, I was anxious that my friend Dr. Bigelow, from whom I had parted a few minutes before, should see the patient. I therefore determined to go for him, and requested Dr. Stebbins, if I did not return in half an hour, to give another scruple of calomel. I fortunately found Dr. Bigelow, and was with the patient again in twenty minutes. There was evidently a slight improvement in his condition; the body was not so cold, and a very feeble pulsation could be perceived in the radial artery. Dr. Stebbins has since remarked that just before my first visit he discovered that there was a very feeble and indistinct pulsation which lasted but a few minutes, and that the patient might be considered to have been without pulse nearly an hour. We thought it best to give another scruple of calomel, which was followed with sixty drops of laudanum. In the course of fifteen or twenty minutes it became evident that reaction was taking place; the spasms had ceased, the pulse was more distinct and less feeble, and the skin warmer. Though the voice continued husky, the patient felt so much relieved that he gave us a very full and distinct account of his attack and symptoms up to the arrival of his medical attendant.

We left him a little before six o'clock, intending to visit him again in the evening, and advised to continue the brandy, till the temperature of the body was still further restored. At nine o'clock P. M. we found him in all respects more comfortable; the pulse was better, and the temperature of the skin almost natural. The voice was still husky and the livid hue of the countenance remained. He was, however, entirely free from pain. The directions for the night were, that he should take thin, liquid nourishment, not exceeding a teaspoonful at a time, and if the spasms should return, the calomel, laudanum, and brandy were to be again administered. It was also directed that the remaining scruple of calomel should be given

at six o'clock in the morning, if there should be no discharge from the bowels previous to that time.

He passed a comfortable night; slept some, and at two o'clock A. M. passed about a tea-cup half full of urine. At six o'clock he took the remaining scruple of calomel, and when I saw him at nine on Friday morning he had had no discharge from the bowels, though he had taken sixtynine grains of calomel since two o'clock of the afternoon preceding. I therefore directed an ounce of castor oil to be given, to be followed in an hour by an injection if the bowels were not previously moved. These remedies had the desired effect; there were several dejections in the course of the day, of a very dark color, with a sediment resembling fine black sand.

No untoward circumstances occurred during his convalescence; no febrile symptoms appeared after those of the cholera had subsided. He did not, however, recover the tone of his voice nor the ordinary appearance of his countenance for several days. At the present time his health is better than it was before his attack.

There can, I think, be no doubt that this was a case of spasmodic cholera, but it is difficult to say what could have acted as the exciting cause. There had been no extraordinary fatigue or exposure, and no imprudence of diet. On the Saturday preceding his attack he had ridden to Easton, twenty five miles, and preached three times on the following day. On Monday at one o'clock he delivered an address on the subject of temperance, which occupied about an hour, and then returned home. On his way home from Easton he ate nearly a pint of whortleberries, but which caused no inconvenience. He felt somewhat fatigued by his ride, but not more so than he had often been before.

On Wednesday afternoon, the day before his attack, he was in the city, and between four and five o'clock, drank some spruce beer, which was rather flat and stale. This occasioned a slight degree of nausea, which continued till he went to sleep at night.

These seem to have been the only deviations from his ordinary mode of living, and I leave it for others to decide how far they could probably have had any influence in producing the severe attack which has just been described.

I have already mentioned that his hearing was affected for some hours, to such an extent that he was almost deaf with one ear, and during his sickness his vision also became quite

indistinct. But notwithstanding this, he has since remarked that his mind was never more clear or more vigorous in its operations than at the time of his greatest danger and severest suffering.

I do not feel prepared to say how far the mode of treatment should be regarded as instrumental in producing the favorable result of the case. All the circumstances are stated precisely as they occurred, so that every one must form an opinion for himself. It may be said, that reaction was beginning at the time the large doses of calomel were exhibited, and that of course they did not probably exert much if any influence in the production of it. Or, that the case was a sporadic one, and though exhibiting severe symptoms, it was less likely to terminate fatally than when the disease is epidemic. It would be a subject of regret to me, if any practitioner should be induced by the statements I have made, to place reliance on a remedy, which may hereafter be shown to have no power in rescuing patients when attacked by this formidable disease. But I must at the same time acknowledge, that, from the accounts I have received of the success of the practice in our western country, I should place more confidence in large doses of calomel than in any other article of the Materia Medica, in the management of spasmodic cholera.

Boston, Nov. 1834.

Dr. Flint's Operation for Polypus Uteri.

[To the Editors of the Medical Magazine.]

Gentlemen, — I noticed in the Medical Magazine, of Oct. 15th, Dr. Yale's case of Polypus Uteri, successfully removed by ligature. I have repeatedly used both the double canula, and Charles Bell's instrument for removing polypi of the uterus, and successfully. — But some years since, accident led me to adopt another procedure, which I have practised, with a single exception, in many cases since, and which I will briefly describe.

If I find, on examination per vaginam, polypus protruding into the vagina, I grasp so much of it as I conveniently can and *pinch* it off. Or if, as is more commonly the case, I discover a small pyriform tumor, not larger perhaps, and shaped like a full grown strawberry, embraced by the cervix uteri, I take a

pair of forceps (I have used what are called 'bullet, forceps,') and directed by the finger, I seize the tumor firmly, and by rolling the forceps, either break off the polypus at its pedicle or twist off the portion included in the blades.

It is only necessary to destroy the integrity of polypus and it certainly dies.

I could adduce many cases of polypus uteri cured in this way without pain or hemorrhage, or accident of any kind, but shall, for the present, defer it, as it is my intention to prepare a paper on the subject, with the symptoms which denote the existence of polypus, and cases; including a history of some interesting cases of cauliflower excrescence, which is sometimes confounded with benign polypus, but which is, in fact, q ite another disease and carcinomatous, and, I believe, incurable.

Yours, J. H. Flint.

Northampton, Oct. 27, 1834.

Obituary Notice.

Died in this city, Tuesday Nov. 4, John Dixwell, M. D.

Dr. Dixwell, was born Jan. 6, 1777. He was the son of Samuel Hunt, whose name he received; but after he had entered upon the practice of his profession, by legislative enactment in 1805, his name was changed, and he took that of his mother's family, and of one of the judges of Charles the First, whose lineal descendant he was. He graduated at Harvard in 1796, and after a short time spent as preceptor in the Leicester Academy, commenced the study of Medicine under the late Dr. John Warren.

He entered on the practice of his profession about the commencement of the present century, at the northern section of the city. He was one of the first physicians of the Boston Dispensary, and retained an active connection with that institution for a number of years. Many of the patients whom he attended in that situation, he continued under his care gratuitously, till his death. He was an active member of the Massachusetts Medical Society, and took a great interest in its concerns. For more than twentyfive years, he was one of its Councillors, and filled successively the offices of Censor, Recording, and Corresponding Secretary, and for the last two years of his life, that of Vice-President of the Society. About year 1810, he was attacked with severe hemorrhage from

the lungs; his situation was considered so precarious at that time, that his medical friends advised a removal to a warm climate; but circumstances rendering it impracticable, he resolved to try the effect of a change of diet, and other means; he accordingly gave up animal food for milk, wore a perpetual blister on his chest, and attended to his practice on horseback; the result was a restoration to health. During the year 1829, he was again attacked with hemorrhage, which was severe, and attended with an urgent cough; profiting by his former experience, he made up a favorable prognosis of his case. His remedies were constant vesication, the application of leeches to the chest, attention to the secretion of the alimentary canal, and his former diet of milk. Under this treatment he retained tolerable health until the disease which terminated his life. It is worthy of remark, in connexion with this, that the subject of his dissertation at the examination for his medical degree, was the diseases of the lungs. In treating this subject he expressed pretty sanguine opinions respecting the cure of such diseases; and as it was the custom in those days for the candidates to defend their theses in a disputation with the professors, some pretty sharp discussion ensued between him and one of the professors, which ended in a compliment from the latter.

During the night of the 23d ult., he was attacked with severe pleuritic inflammation, for which he bled himself freely, and in the morning applied leeches to the side, followed by vesication. He suffered much from difficult respiration through the disease; the usual course of the bile became obstructed, and suffused itself through the skin; the case soon took on the character of our autumnal fever and terminated on the twelfth day.

Autopsy. The correctness of the view he took of his own case, and the treatment he submitted too, seemed to be established by the state of the organs within the thorax. The adhesions of the pleura of the lungs, to that of the ribs, were extensive and of long standing, but the principal seat of the disease was in the superior portion of the lungs, and here percussion in the early stage had indicated it; two cavities were found, one of an inch in diameter, the other smaller, filled with a cretaceous substance, which appeared to have been deposited by layers in the form of calculi; there was no appearance of pus within them, and they were probably of many years standing. Other smaller tubercles in an incipient stage were observed, which probably would have led to phthisis had he survived this attack.

Dr. Dixwell was entirely devoted to his profession, never having engaged, except in the commencement of his medical life, in any other pursuit. His practice was of that decided character which regarded no obstacle, if his mind was made up as to the proper treatment; neither was he restrained by timidity from the employment of remedies, which in other hands, might be considered as too active in their operation, provided he saw a faint prospect of relief from them. In his attention to his patients he was assiduous; and his kindness was not always limited to the alleviation of their bodily diseases; more than one instance is recollected, in which poverty had succeeded affluence, where his counsel and personal assistance has relieved the distress attendant on such a reverse. Indeed the sympathy expressed by many of his patients during his illness, and the tears shed at the sight of his remains, by families in which he had always been the medical attendant, even to the third generation, showed the estimation in which he was held.

COLLECTANEA.

Structure of the Nervous System. By James Macartney, M. D.—It has been long known, that the white substance in many parts assumes the shape of bands or bundles of fibres Dr. Spurzheim did not hesitate to call these fibres nerves, and was more successful in tracing their course in some parts of the brain than his predecessors had been.

But the author has employed a method of dissecting the brain, which has enabled him to discover that all our former ideas with respect to the structure of the cerebral organ fall far short of the intricacy with which its several parts are combined.

In order to perceive the real structure of the brain, recent specimens are necessary. The sight should be aided by spectacles of a very high magnifying power; and as the different parts are exposed in the dissection, they should be wetted with a solution of alum in water, or some other coagulating fluid. By these means it will be observed that all the white substance, whether appearing in the form of bands, cords, or filaments, or simply pulp, are composed of still finer fibres, which have a plexiform arrangement, and that all those fibres, to the finest that can be seen, are sustained and clothed by a most delicate mem-

brane. By the same mode of dissection, also, it is possible to make apparent the existence of still finer interwoven white fibres in all the colored substances of the brain, in many of which the nervous filaments are so delicate and transparent that they are not visible until in some degree coagulated by the solution of alum or by spirits.

Dr. Macartney has thus been enabled to see twentysix plexuses not hitherto described in the brain, the fibres composing which assume two arrangements, the one reticular, the other arborescent.

The membrane mentioned as pervading the entire substance of the brain, and supporting its delicate organization in every part, has heretofore escaped the observation of anatomists, and yet when the fact is declared, we at once perceive that such a membrane must exist. It cannot be supposed that a mass of the magnitude of the brain, and possessing so definite an organization, should form an exception to the fabric of all the other parts of the body, and be left unprovided with a membranous support. This membrane is analogous to the cellular membrane; and if we admit that the filaments of the brain are similar to the fibres in other parts of the nervous system, we may consider the membrane which sustains and connects the cerebral plexuses as their proper neurilema.

The pia mater, or vascular integument of the brain, is composed of two layers; the external of which passes over the convolutions of the cereberum and the gyri of the cerebellum, and the internal is reflected between these forms, and gives all their exterior surface an intimate covering. The blood-vessels seen on the brain are inclosed between these layers, and are conducted on the inner layer to the substance of the organ. The inner portion of the pia mater is continuous with the membrane or substance of the brain, but becomes so delicate on entering the structure of the organ, that it is readily detached from the brain without apparently injuring the integrity of its surface. When the inner layer of the pia mater is obtained in connexion with a portion of the vessels and membrane which penetrate the brain, it has the appearance of tufts or shreds, and as such has been described by Ruysch and Albinus under the name of *tomentum cerebri.*

The neurilema of the brain appears in the adult to be only furnished with colorless vessels, except in those parts where red vessels are seen to pass into the substance of the organ; but in the fœtus, the colored substance of the convolutions may be injected so as to appear quite red. This fact is consistent with the structure of many other organs during fœtal life, which in that period of existence receives red injection, yet only admits afterwards colorless fluids. The great degree of vascularity i...

the fœtus is particularly remarkable in the eye, the lining of the labyrinth of the ear, the periosteum, &c.

The author has ascertained that the actual quantity of the sentient substance existing in the brain and other parts of the nervous system, is extremely small. The bulk of these parts is not materially diminished by removing their nervous matter, provided their membranous structure be left behind; and whenever we meet with the sentient substance in connexion with a highly attenuated membrane, as in the retina and in several of the cerebral plexuses, contained in the colored matter of the brain, it is absolutely invisible until it has undergone some degree of coagulation. It is, perhaps, not assuming too much from these facts, to suppose that the whole nervous system, if sufficiently expanded, and divested of all coverings, would be found too tender to give any resistance to the touch, too transparent to be seen, and probably would entirely escape the cognizance of all our senses. Consistently with this view of the matter, the author thinks that we can hardly take upon us to say that the simplest animals, and even plants, may not have some modification of sentient substances incorporated in their structure, instead of being collected, as in the higher classes of animals, into palpable membranous cords and filaments.

The term plexus has been generally employed to signify an interweaving or crossing of filaments; but Dr. Macartney is satisfied that there is an actual union or intermixture of substance in both the plexuses of the brain and of the other parts of the nervous system. He has discovered that the roots of the spinal nerves, instead of being connected with the medulla by mere contact or insertion, as hitherto supposed, actually enter into the composition of the filaments of the spinal marrow, and that these roots of nerves (as they are called) form communications with each other within the substance of the medulla. With regard to the cerebral nerves also, it can be shown that they are continuous with the cerebral plexuses in their immediate neighborhood.

Many of the communications formed between the right and left sides of the nervous system are well known, such as the commissures of the brain, the crossing white filaments of the spinal marrow, the decussation of the pyramids, and the interchange of the two optic nerves in fishes. The author has found so many communications to exist between the organs of the nerves on the right and left sides of the body, that he is disposed to believe it to be a general fact. The optic nerves in the human subject do not decussate, as some have supposed, but form a very intricate plexus where they come into contact. This mode of conjunction accounts for atrophy of the tractus opticus being in some instances found on the same side, and at others on the opposite side to that of the eye affected [illegible]

The facts already observed would justify the opinion that the sentient substance is in no place distinct or isolated; that it is essentially one and indivisible; and consequently the nervous system differs from all the other systematic arrangements in nature.

It appears to the author that this view of the sentient system will alone serve to explain the numerous sympathies which exist in animal bodies, the occurrence of disease in the higher orders of animals from indirect or remote impression, and the operation of all remedies which act through the medium of the sensibility.

The mode in which the sentient substance is arranged, its more or less minute subdivision, and the degree of arterial vascularity, determine the phenomena of sensibility as they come under our observation. Hence, we find that the brain, even different parts of it, the spinal marrow, the trunks of the nerves, and their sentient extremities, are so differently endowed, that we might be almost led into the error of supposing them all composed of different materials.

It is well known to surgeons and to experimental physiologists, that the brain is not endowed with any *feeling*, in the common meaning of the word. It may be wounded without any sense of pain to the individual.

The trunks of the nerves not possessing the arrangement of the sentient substance suitable to common sensation, can only transmit the feeling of pain. Thus patients after amputation often complain of pain in the part that has been removed; but the author believes that in no instance have they experienced natural or agreeable sensations, or have expressed a consciousness of the presence of the removed limb unattended with pain.

The sentient extremities of nerves are alone capable of being affected by narcotic poisons. Half a tea-spoonful of the essential oil of almonds introduced into the substance of the brain of a rabbit did not produce the least effect on the animal, nor was any effect produced by placing the end of the sciatic nerve in a spoonful of the essential oil of almonds during half an hour, although the animal was afterwards killed in the usual manner by a few drops of this liquid on the tongue.

Impressions on the extremities of nerves sent to the organs of sense and to the external surfaces of the body, are attended with consciousness in the individual, whilst those naturally made on the interior surfaces cause no perception. These surfaces, however, are amply supplied with nerves, and possess a high degree of local sensibility, by which they not only discern mechanic forms, but qualities in food and medicines that the perceptive powers of the individual cannot distinguish. These internal and unperceived sensations are continually, though secretly, in-

fluencing the condition of the whole nervous system, and are often the cause of remote morbid actions. Under some circumstances, movement follows impression made on the *external* parts of the body after consciousness has become extinct. It is known that the ordinary actions of the iris correspond with the impressions of light on the retina; and the author has observed that the iris continues to move under the same law after the animal's head has been cut off, or the eye taken out, as long as the retina retains its local sensibility: similar effects take place in other parts of the body.

The mutual influence of the nerves and spinal marrow seems to be all that is necessary during fœtal life, as the absence of the brain in the acephalous fœtus does not interfere with any of the functions of the creature until the moment of birth.

The offices which the colored substance performs in the nervous system, have been matter of speculation with anatomists. One obvious purpose of its existence is to give support and security to the finest subdivisions of the sentient substance; we therefore find that it affords such protection in proportion to the necessity: hence, in the brain, the colored substance is soft and tender, while in the ganglia of the nerves it is generally dense and firm. Besides, however, forming a nidus for the ultimate plexuses of the sentient matter, the colored substance would seem to fulfil some other use not yet ascertained, as wherever it exists it exhibits the same character with respect to color, varying from yellow to green or brown. Dr. Macartney considers the yellow spot in the retina of the human eye, and in that of the monkey and lemur, as a ganglion, having discovered that it contains a more intricate reticulation of the nervous filaments than exists in the other parts of the retina.

The colored substances of the nervous system in no degree derive their peculiar tints from the blood that circulates in them, since the colors are palest in the fœtus, and grow darker as the nervous system approaches its perfect organization.

It is a generally received opinion that the ventricles of the brain are cavities or hollow spaces containing some liquid. This error has arisen from the common modes of dissecting the brain, which necessarily separate the surfaces of the ventricles from each other. If, however, the dissection be performed without disturbing the natural position of the parts, not the slightest appearance of cavity or interspace presents itself. The sole use of the ventricles, therefore, seems to be, merely to gain an extent of surface necessary to the developement of the peculiar organization of the brain. Apparently there is less superficies in proportion to the magnitude of the mass of the brain in man than in that of animals; but if we calculate the depth of the surfaces between the convolutions of the cerebrum and on the branches

of the arbor vitæ in the cerebellum, together with the internal surfaces, we shall find that the superficies of the human brain is greater in relation to its bulk than that of any other animal. In addition to the surfaces already known, Dr. Macartney has ascertained the existence of ventricles (so called) in the bulb of the olfactory nerves, and in the optic thalami of the human adult brain. In the thalami the distinction of surface is obscure, but in the olfactory tubercles it is sufficiently plain.

The author concludes with stating his belief, that every assemblage of the nervous filaments in the form of plexuses is destined to fulfil an especial purpose, and with the anticipation that at no distant period we shall be able to understand many of the phenomena of sensation which have been hitherto veiled in the utmost obscurity.

Paralysis from the Vascular System. — Extract from Dr Stokes's Lecture. After reporting a case, Dr Stokes goes on to say : —His constitutional symptoms were emaciation, prostration of strength and loss of appetite. The temperature of the body was natural, but, on examining the limb, we found (and this is a point of great importance) that it was as low as 58^0 of Fahrenheit, in fact, it was quite cold. There was also complete loss of sensation from the middle of the thigh to the toes, and though he could rotate the limb slightly, it was, in all other respects, powerless. Here we have paralysis of motion and sensation in one of the extremities, *with remarkable coldness of the limb.* On making an examination along the track of the femoral artery, we found that it was painful on pressure, *without any pulsation*, and conveying to the finger the feel of a piece of hard cord. From a consideration of those circumstances, we came to the conclusion that it was not pervious, and that this would account for the state of the limb.

On dissection we found that the aorta was healthy to within about six inches of its bifurcation; below this point it was partly filled by a red clot. The left common iliac was healthy, but the right was plugged up with a dark red clot, which extended into the internal iliac and obturator arteries, filling up also the femoral and its branches. The case, in fact, was nothing more or less than one of chronic arteritis.

This remarkable form of disease has been also observed by other authors. You will find it well described in Rostan's work on diseases of the brain, where he mentions that this loss of sensation and motion in a limb is sometimes produced by abstraction of its vessels. In persons advanced in life, the arteries are also frequently obstructed by the formation of ossific deposits within them, producing loss of power, coldness, and diminution

of sensation, as in the foregoing case. A similar effect may occur from the pressure of an adjoining tumor on the trunk of a principal artery.

Paralysis resulting from disease of the arterial system is distinguished from paralysis caused by cerebral disease, by the following marks: first, by the color of the integuments of the affected limb, which, in a case of the former description, are generally of a violet hue, or of a much deeper tinge than in the latter case, or in a state of health. It is very rare to find the two limbs of the same color, as we do in cases of cerebral paralysis. Another mark is, that the temperature of the limb is always lower than that of the healthy one; but the distinctive sign of this form of paralysis *is the absence of pulsation in the arteries in parts where it should be naturally observed.* If to this description you join the absence of cerebral symptoms, you will seldom fail in making a correct diagnosis. I have had two cases of this disease under my care; one of them occurred in the upper, the other in the lower, extremity, and, from observing the characteristic marks already detailed, I had no difficulty in making the diagnosis. It is to that peculiar form of this disease, which is considered by some authors to depend on ossification of the arteries, that the name of 'Pott's Gangrene' has been applied. A great deal of light has been thrown on this disease by the researches of modern pathology. It is now pretty well established, that we may have this gangrene, not only in old persons from ossification of the arteries, but also in the young from arteritis. In truth, the pathology of Pott's gangrene appears to be one of two changes, — either an arteritis or ossification of the arteries themselves; and of these two causes the first is by far the most frequent. You will see at once the importance of this view of the question, for if the gangrene occurs in a young person, and is connected with inflammation of the arteries, it is a disease more or less under the control of medical treatment; but if it be produced by ossification of the arteries, the results of treatment are far less likely to be successful.

We have, then, in a case of paralysis of this description, more or less loss of sensation and motion, coldness of the limb, and absence of arterial pulsation. With respect to coldness, it may be said that it is of little value as a sign, being frequently observed in cases of cerebral paralysis. To this it may be replied, that though coldness is sometimes present in cases of ordinary paralysis, still it is never so remarkable as in this form of the disease, and the temperature of the limb is but a few degrees below the standard of health. Dr. Abercrombie makes a very interesting conjecture on this subject. He says, the temperature of paralysed limbs is generally considered to be lower than that of the healthy ones, and, indeed, such is the case; but the true expla-

nation of this occurrence is, that in this condition the limb loses its power of preserving a medium temperature, and hence it is that, according to the temperature to which it has been exposed, it becomes hotter or colder than the healthy limb. A case is mentioned of a medical man who labored under paralysis of one of the upper extremities. This gentleman, on one occasion, after having applied some warm bran to the paralysed limb, was astonished to find, on touching it with the sound hand, that he could not bear the heat, though he was at the same time unconscious of any increase of temperature in the paralytic extremity.

The symptoms, then, of this form of paralysis, are diminution or abolition of sensation and the power of motion, a dark or violet hue of the skin, remarkable coldness, and absence of pulsation in the arterial trunks which supply the affected limb. These, with a tendency to the formation of gangrene, are the characteristic marks of the disease, and, by bearing them in mind, you will seldom err in making a diagnosis. In the great majority of cases the disease is confined to one extremity; but Rostan gives some cases in which it was more general. We might also add to the diagnosis, that paralysis connected with disease of the brain often comes on suddenly, while, in this case, its invasion is slow and gradual. It is however, true, that some cases of paralysis, depending on this cause, have come on so suddenly, as to render this circumstance of less value as a diagnostic.

With respect to the treatment of this form of paralysis, if the patient be young and the disease recognised at an early stage, it is possible that you may be able to arrest it by free local depletion and other antiphlogistic means. In the case which was under treatment in the Meath Hospital, the symptoms had lasted for a considerable time before the disease exhibited any remarkable violence. The man was admitted on the 7th of February, and at this time the disease had been five weeks in existence, having begun at the lower part of the limb, and extended gradually upwards until it involved the whole leg and thigh. Yet it is very probable that this patient might have been saved, if proper means had been taken to arrest the inflammation of the vessels at an early period. Baron Dupuytren has published a case, in which it appeared that this disease was setting in, but was checked at once by bold antiphlogistic treatment directed to the affected limb.

Extraordinary Calculus. — Dr. Mott has extracted from a man an enormous calculus, measuring nearly twelve inches in circumference, and weighing upwards of seventeen ounces avoirdupois. Every effort to crush and bore it having failed, Dr. M. extracted it entire ; and as it was as large as the lower aperture

of the pelvis, great violence was of course done to the soft parts. The case terminated fatally on the fifth day. The patient had suffered many years, and was very much reduced.

Transylvania Journal of Med.

Case of Puberty and Pregnancy in a Girl of ten years of age. Communicated in a letter to the Editor, by Dr. D. Rowlett, of Waidsboro, Kentucky. — Sally Deweese, daughter of John Deweese, was born in Butler county, Kentucky, on the 7th of April, 1824. She was of the ordinary size, but her hips and breast began to grow rapidly in a few weeks after she was born, and at twelve months of age she began to menstruate, and her hips and breasts had become so large as to be the objects of common remark; and as she took no pains to conceal her condition, her menstruating so young, became a fact of public notoriety, which continued regular till sometime in the year 1833, when she became pregnant, and on the 20th day of April, 1834, she was delivered of a healthy female child, weighing seven and three-fourth pounds. Thus at the age of ten years and thirteen days, she became the mother of a child of ordinary size; which, however, refused to suck her, and has been so far raised by the bottle. It is as healthy as is usual for children to be when raised from the bottle, and at the time of taking these notes it weighed eight and three-fourth pounds, and its mother weighed one hundred pounds. She was four feet seven inches high and had the countenance of a girl not exceeding her in years, but is as intelligent as girls generally are at her age.

She was the fifteenth child her mother had given birth to, and was born when her mother was forty-five years of age. There had been no previous case of early puberty, or premature old age in either the family of the father or mother.

Her father lived in Butler county until she was two years old, and then removed to the place on which he now lives, in Hickman county, one mile south of Mayfield's Creek, and ten miles east of the Mississippi river, in latitude 36° 59′ N.; but I presume that latitude nor atmosphere has had any influence in this truly (to me) astonishing case. I think it is an over-match for the case of the Swiss girl spoken of by Haller.— *Translv. Journ. Med.*

June 18th, 1834.

Case of Extra-Uterine Fœtation.— I have thought that it might be interesting to yourself and the profession, to communicate a few facts in relation to a curious case of *extra-uterine fœtation.* — Now living in the county of Fairfax, Va., is a negro woman, the property of Russel R. Wigginton, who has carried

a fœtus ever since the year 1824. On the 12th of September of that year, I was sent for by Dr. Elias Lacey of Loudoun county, to see this case in consultation with him. The woman was taken, as she supposed, in actual labor, and a midwife had been called to her prior to the doctor's arrival, but finding that she could make nothing of the case, desired a physician to be sent for. After a careful examination *per vaginam* and otherwise, he concluded that it must be a case of *extra-uterine pregnancy*, and when I arrived, after a deliberate investigation, I fully concurred with him in that opinion. As the woman's sufferings at this time were excessive, and in order to afford her prompt relief, we decided on an early operation, and proposed it as the only alternative; but to this her master raised objections, and desired that we would call in an old experienced practitioner, Dr. Richard Coleman, of Fairfax county. After repeated examinations, this gentleman arrived at the conclusion that the case was an obscure one, and that it was possible we might be mistaken in regard to its true character, and of course opposed a recourse to gastrotomy. We all at last agreed to suspend the pains by anodynes, and leave the case, for some time at least, to the operations of nature. Having waited for two or three days, we left her under the influence of the anodynes, and never after had occasion to return to our patient. It seems that shortly after our departure, she became free from pains, and has so remained from that period to this. Some considerable time subsequent to the consultation, Dr. Coleman saw the woman, re-examined her, and acknowledged to me that the opinion of Dr. Lacey and myself was correct. I have seen her almost every year since the case occurred, and have from time to time distinctly felt the fœtal bones through the abdominal parietes; and having lately had to attend her mistress, I have had an opportunity of repeatedly satisfying myself in regard to her true condition. During my attendance at the house, the first named physician met me there in consultation, when we had an opportunity of examining her together. We could then distinctly trace the bones of the *cranium*, the *scapula*, the *costæ*, &c. Although there are many projections at different points over the abdomen which seem to distend the integuments, and render them very tense at these places, yet she complains of no soreness whatever; but on pressure with the hands, she says the prominences feel a little tender. There appears to be not the smallest tendency towards suppuration or ulceration. Her general health has been good, and never materially interrupted, with one exception only. In the summer of 1830, she suffered under a severe attack of dysentery, from which she narrowly escaped. She informs me that she menstruated in two or three months after she supposed herself to be in actual labor, and has been

very regular in that way ever since. But notwithstanding that the uterus has thus uninterruptedly performed its functions, she has never conceived in the long period of almost ten years. In conclusion, I must not omit to state that there were partial discharges from the *uterus*, or what she calls a *show*, at the period of her fancied parturition. I will also further remark, that she is to this day an effective, valuable house servant. She is now about forty years of age, brisk and lively, and daily performs a variety of active services.

I am very respectfully, Yours, &c.

F. P. Hereford, M. D.

Spontaneous Cure of Intussusceptio. — Dr. Hedinger reports the case of a woman, aged fifty-one years, who was affected with intussusceptio, and passed by stool a portion of the small intestines, forty inches in length. — *Hecker's Wissenschaftlichen Annalen — N. A. Archives.*

Means of Compression in Chronic Buboes. — In order to adopt this plan, a large and solid compress is placed on the tumor, and fixed by means of an appropriate bandage. This compress should be continually imbibed in a solution of some vegetable mineral water, or any other astringent solution, and the patient confined to his bed. By this process, resolution of the bubo takes place ordinarily in forty eight hours, unless the suppuration existed at the time of the use of compression. This latter circumstance does not interfere with the remedy, and the process of cure will continue, and the bubo become destroyed. Should the abscess break, the escape of the pus is to be facilitated by the proper adjustment of the compressive apparatus, and the walls of the abscess to be kept in contact with one another. — *Med. Gaz.*

Acarus, or Itch Animal. — M. Beaude, on the first of this month, presented to the Academy of Sciences six living acari, which he had that morning extracted from the skin of some itch patients in the Hospital St. Louis. The insects were found imbedded in the epidermis, at the end of a little furrow leading off from the vesicle. They have never yet been discovered *in* a vesicle. — *Med. Gaz.*

The Medical Lectures of Harvard University commenced on the 5th inst. The number of students is already about 100, a larger number than has attended for several years.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—Willis.

Clinical Observations on the General Treatment of Fractures of the Extremities.

By Baron Dupuytren.

Bandages and other Apparatus.

There are few positions in which the surgeon can be placed, that require of him a greater share of acquaintance with the details of his profession, than the treatment of fractures in general. It is by no means enough that he exercises a correct diagnosis, and employs those means which form the general basis of his management; he must further be familiar with the rules of conduct required for the different complications he has to deal with, and the several circumstances connected with each particular lesion. Nay, if he be really accomplished, he will not disdain to stoop to those minute particulars which some people may think of little importance, yet the neglect of which may lead to serious consequences. Thus the precautions to be taken in stripping a patient of his clothes, and in transfering him from one place to another, so as to avoid cruel sufferings, and the aggravation of injuries already done to the soft parts — the situation in which the patient should be placed — the form and degree of softness or hardness proper for his bed during the treatment — the manner in which the

surgeon should proceed to dress his patient, and apply the necessary bandages — the means of ascertaining the consolidation of the callus — and the advice to be given to the patient at this stage of the treatment, — all these are points which experience shews must be attended to, and that with no inconsiderable share of diligence. In the observations which I have at present to offer, I shall call your attention, in the first place, to the kind of bandages which I usually employ in fractures of the extremities.

When the fracture to be treated has its seat in one of the thoracic extremities, and is not accompanied by any wound, the roller bandage is to be preferred. Some compresses are placed across the limb, where the fractured point is prominent, and over the splints, whether they be of metal, pasteboard, or wood. If it be the humerus which is fractured, the patient is seated on his bed; one, two, or three compresses are applied, over which some turns of the bandage are made; other compresses are then introduced, both above and below; after which splints are put on the four sides of the member, taking care that they shall not press on the osseous prominences of the joints. A general bandage is then applied over all.

In the case of the fracture of a fore-arm, the apparatus required are — a bandage four or five ells long, graduated compresses, two splints of the length of the fore-arm, or a little longer, — at all events broader.

The patient being placed in a sitting posture, or lying down, the four fingers of the hand are grasped by an assistant; another takes hold of the lower part of the arm; and the fore-arm being now reflected a little towards the humerus, extension is attempted. The surgeon, by means of well-directed pressure on the anterior and posterior aspect of the member, collects the muscular substance of the flexors and extensors into the inter-osseous space, to which he thus restores its natural dimensions — the fragments of the radius being thus separated from those of the ulna. In the next place, the fore-fingers and metacarpal bones are rolled in a bandage up to the wrist. This part is now committed to an assistant; and the graduated compresses, previously steeped in Goulard's lotion, are next applied to the dorsal and palmar aspects of the part, encroaching somewhat on the wrist and the tuberosities of the humerus. The two splints are applied above these, the bandage at the wrist is resumed from the hands of the assistant, and the roller is continued from the wrist to the el-

bow. The antero-posterior diameter is thus enlarged, and the interosseous space necessary for the movements of rotation, is thus preserved. If the fracture should be complicated with a wound, Scultetus's bandage, or some other on that principle, must be employed.

In fracture of the radius, I am in the habit of using, in addition to the ordinary apparel, a splint, which I call the cubital splint. It consists of an iron plate, curved at its lower extremity, and in its concavity having several buttons. The upper extremity of this metallic plate is laid along the ulnar margin of the fore-arm; and a compress, folded several times, being placed between the inner side of the wrist and the convexity of the splint, the hand is drawn towards the metal, and made to grasp the radial margin of the first, by means of a handle formed with a compress, which is placed between the thumb and fore-finger, and the two ends of which, being furnished with two strings, are connected to the splint by means of one of the buttons which are upon it.

When the olecranon is fractured, I prefer the bandage which is used for the union of wounds transversely, rather than that in common use; and as in extension of the limb, the upper fragment or the olecranon portion, is the only part that has a tendency to be wrongly placed, I only put compresses above that process. I also employ the anterior splint; but the one I use is straight.

Scultetus's bandage is the one I almost exclusively use in fractures of the leg and thigh, where the roller cannot be kept adjusted, but is displaced every moment. It is composed of the following pieces: 1, several pads — 2, several folds of cloth — 3, the ties — 4, a streamer — 5, a bandage with tails (*bandelettes*) — 6, transverse compresses — 7, longitudinal compresses — 8, graduated compresses, for those cases in which there is some prominence of bone — 9, a perforated piece of linen, with cerate on it, or charpie, or diachylon, in case there should be a wound — 10, cushions stuffed with bran —11, immediate splints — 12, mediate splints — 13, a body roller — and, 14, a support for the thigh and for the foot. Let us examine each of these parts separately.

The pads or cushions are for receiving the fractured limb; and while they support it, they tend to prevent the inconveniences of discharges, which would otherwise perhaps saturate the mattress. The folds of cloth, frequently doubled, are laid on the cushions, in order that the latter may not be defiled

with blood or pus: this precaution is above all things necessary in hospitals, where, if neglected, the foul cushions become nests of infection. Over the cloths come the ties, which are intended for keeping the several pieces in their proper position, and to incorporate the whole: there are three of them for the leg, and three for the thigh. The streamer ought to be equal in size to the length of the limb, and folded double; it is settled crossways over the ties, and destined to receive the splints on the extremities, and to support them. Above the streamer are placed the *bandelettes*, which constitute the eighteen-tail bandage, and they are either united or separate. If there be a wound, and pus or blood be discharged, they ought to be separate, so that they may be changed occasionally when soiled. If there be no wound, the tails need not be separate — even ten or twelve of them may be connected by overlapping: that is to say, the first should be half covered by the second, the second by the third, and so on. They are applied, beginning from the lowest, otherwise there would be many wrinkles and inequalities, which ought to be avoided. The tails should be long enough to go nearly twice round the limb. The transverse compresses are placed the lowest at the most elevated part; they must be merely a double fold, for if triple their application would be more difficult, and they ought to be as long as the *bandelettes*. If there be a wound present, the compresses ought to be changed without disturbing the rest of the apparel. It is in cases of this kind that we can appreciate the value of the longitudinal compress, which may be withdrawn when foul. Compresses of various forms, but generally square, and two, three, or four in number, are next applied to the limb; nor is it a practice to be neglected to put on graduated compresses along the length or breadth of the extremity. If it be the tibia, for example, which is fractured, and the fragments project outwards, the compresses are to be applied along the sides of the leg; but crossways, if the upper fragment projects in front.

It is also in cases of this description that we have need of the splints to which I have given the epithet *immediate;* for they act immediately on the fragments, from which they are separated by the graduated compresses alone. These splints are made of pasteboard or light wood, — some flexible material, — for otherwise they would injure the parts; and we must not forget, in applying them, always to interpose one or two graduated compresses between them and the fragments.

Every thing being thus settled so far, we avail ourselves of the transverse compresses, and then of the *bandelettes*, with which we envelope the limb, taking care always to direct them a little obliquely forwards, and so that they may partially cover each other. Next come the mediate splints, between which and the member we place the bran cushions; their length ought a little to exceed that of the limb: their breadth to be about five or six inches; and thickness, an inch and a half or two inches: they ought to be modelled according to the shape of the part, by diminishing their thickness where there is convexity of the limb; and, on the other hand, increasing it where it should correspond with a concavity.

The apparel is now to be combined into one piece by the ties which are connected to the external splint: the knots should be very simple, and placed on that side next the operator. A stirrup made of a long compress, or a leather sole with strings to it, and which may be attached to the sides of the streamer, will serve to support the foot in a steady position.

Lastly, some hoops should be put round the extremity, so as to protect it from the weight of the bed clothes. Nor is this all. In order thoroughly to prevent the movement of the limb, a cloth, folded like a cravat, is fastened to one sideof the bed, then passed over the leg or thigh (whichever is fractured), and the other end tied at the other side. If it be a fracture of the thigh, there is moreover to be placed round the pelvis a body-roller, encompassing the haunches and the upper extremity of the outer splint. This last is a precaution of so much importance, that, in case of fracture at the upper part of the neck of the femur, the patient cannot get well without a curvature of the bone.

An apparel, arranged in the manner which we have now described, is of exceeding firmness, and not liable to disturbance, even should the patient be delirious.

I will still further add to these details, that the bed of the patient ought not to be very soft; it must be even, — not convex or concave; a firm pallet or mattress of horsehair, (furnished with laths), both for the comfort of the patient, and to secure his cleanliness. Lastly, there should be neither an elevation at the upper part, nor should the feet be raised.

Preliminary arrangements. — Having thus given you an account of the several parts of which the bandages we employ consist, and the mode of applying them, I shall now beg leave

to call your attention to the care which the patient requires immediately after the accident has befallen him. If he be carried on a litter, you need be in no hurry to remove him from it: he ought to be stripped on it, while his bed is being prepared and the requisite apparel got ready. His boots and stockings ought to be slit up, and not drawn off; for every shock and painful dragging should be avoided. The limb should be washed, that it may not be necessary to spoil the bed afterwards with the process. All this being done, an assistant must take the patient round the body, another by the two extremities, while the operator, or some other careful person in his absence, must take charge of the fractured member. In this way the patient is carried to his bed, and deposited there: his pillow should have little or no elevation, so as to avoid slipping downwards in the bed; a very slight elevation, however, may be advisable, in order to support the head, and not to favor the occurrence of sanguineous congestions.

When putting on the bandages, the operator is placed at the outer side of the fractured limb; an assistant on the inner side is exclusively charged with the business of supplying each piece of the apparel in order. Another assistant holds the foot with his left hand in front and over the instep, and with his right holding the back part just above the heel. A third assistant, at the knee or haunch, according to the place of the fracture, holds the sides of the condyles of the femur or tibia, taking care not to press on the vessels or popliteal nerves; for if there be a wound, the pressure may occasion a hæmorrhage. After this, compresses steeped in goulard-water, or some other resolvent, are held by two of their angles by the operator, while the first assistant holds the other two; they are then laid on the limb smoothly. If there be a wound, it is either dressed with diachylon, or a compress spread with cerate, and perforated; and over this charpie is laid. Lastly, the several pieces of the apparel are applied in the manner just now described.

If there be no wound, we should proceed on the following day to a fresh dressing, with the removal of the bandages; for it is not unusual to find, after four-and-twenty hours, that considerable swelling, or perhaps gangrene, has ensued. But this being done, it will be enough to visit the patient every fifth or sixth day, unless he feel pains, when it will be necessary to attend to him oftener.

Duration of Treatment. — With regard to the length of time during which the treatment may last, in general the apparel may be kept on for twenty-eight or thirty days in the case of children; forty days for adults, and much longer for aged people. It ought not to be removed until we have ascertained that the consolidation is complete. In order to be sure of this, the operator lays hold of the two fragments, and cautiously tries if he can produce any motion between them. If the callus yield, the apparel must be re-applied immediately; if it do not, the bandages need not be put on again, but they should be left in readiness by the side of the limb for three or four days. At this period, it will not be safe to allow the patient to walk immediately, for the callus may give way to the weight of the body or the action of the muscles: he must keep quiet in bed for ten or twelve, or fifteen days longer. He may then sit up in his bed, or in an arm-chair, with his foot laid on a pillow, and the whole limb wrapped in a roller for about three weeks. Crutches may now be given him, and they should be tipped with cloth, lest they should slip on the floor. The patient ought, if possible, to be kept in a chamber on the ground-floor, and he should avoid walking on uneven pavement — smooth sanded walks being much preferable.

I have thought it thus necessary, gentlemen, to dwell at length on these minute and apparently trifling details, because experience has taught me how very important they are for the practitioner, and, at the same time, how generally they are misunderstood, and frequently, also, how improperly they are practised.

Use of Plaster of Paris in the Treatment of Fractures.

The extensive circulation which your Journal so deservedly enjoys, affords us the best means of communicating to the medical profession a mode of treating simple oblique fractures (particularly those of the thigh,) which although not unknown, has never hitherto been brought into practice. The mode of treatment alluded to is, that of confining the limb by means of plaster of Paris. A recent successful case induces us to submit the sub-

ject to the consideration of the profession, at the same time anticipating a difference of opinion as to the expediency of the plan. We recollect, indeed, reading an article, some time since, in one of the medical periodicals, in which a method, proposed for treating fractures with plaster of Paris, was strongly condemned by the editor as *impracticable* and *injudicious;* but as we have heard Baron Larrey say, that during the Egyptian campaigns of Napoleon, he had with benefit employed it in small quantities round fractured limbs, with the idea of preventing irritation during travel, we considered it might be tried without incurring a charge of rashness.

——— *Tinney*, of Walton, near this place, aged 19, of muscular habit, in the month of December last, broke the right femur, in the upper part of the lower third, by a fall from a cart. The patient was put in Mr. Amesbury's splints. On the following day, the limb being much shortened, gradual extension was made; the pulleys were used a second and third time during the five following days, notwithstanding which the ends of the bones could not be kept in apposition, from the extreme obliqueness of the fracture. Finding, on the sixth day after the accident, that it would be impossible to prevent a shortening of the limb, we determined on the application of the plaster of Paris. A deal box or trough was prepared, six inches in depth, and of sufficient length to take the whole of the limb from the pelvis, and in this box the leg was placed. A hole being made through the end of the box to admit of the pulleys, and the limb being strapped with soap-plaster from the heel to the nates, and well smeared with oil, extension was made from the foot, and the fractured bones were brought in apposition. The plaster of Paris, in a liquid state, was then poured into the box, until it covered the limb to the depth of an inch.

To guard against possibility of inconvenience from tension, as soon as the plaster on the surface had assumed such a consistence as to admit of its being divided by a spatula, a groove, an inch and a half in width, was made in it on the anterior part, extending the whole length of the limb, so that any change which took place might be distinctly observed. The plaster, of course, within five minutes from its first application, assumed a perfect consistence and hardness, and thus the limb remained during five weeks, at the end of which period, the apparatus was removed, and the leg found to be perfectly straight and not shortened. The box and plaster mould we

have sent to the College of Surgeons, where it may be seen. On inspection of the mould it will be obvious, that, if necessasary, the plaster could have been at any moment removed from the limb without the slightest inconvenience to the patient, and in much less time than a bandage.

It has been suggested, that the heat given out by the plaster during the process would be so great as to prove inconvenient; this, however, is not the case. The only inconvenience which arose from the last time of reduction till the union of the fracture, was a little tenderness of the skin, just over the tendo achillis, produced by the web of the pulleys being moulded with the limb, which in future might be avoided by slackening or removing it after securing the thigh.

In consequence of the success which attended this experiment, we have since made several moulds, and are so thoroughly convinced of the superiority of the plan of treatment, that we should not hesitate to apply it to compound fractures. As these observations may, we hope, induce other surgeons to adopt this practice, a few hints will not perhaps, be wholly undeserving of attention. By mixing *chalk* or *whiting* with plaster of Paris, the composition remains from four to ten minutes, according to the quantity of chalk used, as manageable with the trowel as common mortar. The limb being placed on a board, and extension kept up gradually, till the fracture be reduced, a tolerable quantity of the plaster of Paris and whiting is to be placed far enough round the thigh to include the trochanter major, and to pass between the pubes and scrotum, the latter being protected by means of oiled lint. These two resisting points being secured, the condyles of the femur are to be managed in like manner; the operator may then cover the thigh as much as he pleases in a *simple* case, but in *compound* fracture the plaster should merely be applied so as to unite the points of resistance at the groin with those at the knee. As by possibility inflammation or erysipelas might supervene, the two bodies of plaster of Paris above and below, covering the limb, should be united with a greater or less quantity of the plaster, according to the injury done to the soft parts, so as to admit conveniently of the application of poultices or lotion in case of need.

In fractures of the upper third of the femur, if the bent position should be thought necessary, a single inclined plane will be found most easy to manage, by making extension from the *foot*, the pulleys being fastened to the ceiling; but should the comfort of the patient require relaxation of the flexors of the

leg, the condyles might be secured first, and the knee bent afterwards. We have alluded more particularly to fractured *thighs*, as they are the most unmanageable, and most often the cause of shortened limbs.

Although the detail of this mode of treatment has necessarily encroached somewhat on your valuable columns, we hope it will not be thereby inferred, that in its application it is attended with more than ordinary trouble to the operator; on the contrary, while the benefit to the patient is so great the surgeon will not find it consume more of his time than the ordinary and more familiar method. This remark arises from the desire we feel to obviate every objection which might be urged against the remedy; but we are confident that the members of our profession are far too alive to the calls of suffering humanity, to allow personal inconvenience to influence them in their selection of a remedy.

Before concluding, we may express our opinion that, in fractures of the neck of the thigh bone, motion of the limb would be more readily prevented by confining both trochanters by means of the plaster of Paris than by any other plan hitherto adopted. LANCET.

THE CONCOURS IN PARIS.

IN our second volume we gave a general account of the conduct of this method of electing the French professors, and, to give our readers a more intimate and particular knowledge of so celebrated and favorite proceeding, we select, from the report of a recent instance of it, prepared for the London Lancet, the whole process in the case of one of the candidates — M. Sanson. This lecture, thesis and discussion, are moreover valuable for the sound practical views, and learned commentary they contain on the subjects they treat.

Record of the Concours held at Paris, in June 1834, *to supply the Vacancy in the Chair of Clinical Surgery, occasioned by the death of* BARON BOYER.

The Concours, which was lately commenced, for filling the vacant medical chair in the University of Paris, affords us an oppor-

tunity of accomplishing an object which we have long desired to effect, — that of submitting for the perusal of our readers, a concise but complete account of a concours, as it is held before the Faculty of Medicine in Paris. We do not intend at present to enter upon any consideration of the advantages of the concours as a test of merit. Our purpose is rather, by a register of facts, to enable our readers to form a judgment for themselves on the subject. One thing, however, is palpable, namely, that although under this system the most deserving candidate may not always be successful in his competition, yet that intrigue can never effect the introduction of a professor who is decidedly inferior to his competitors, or unfit for the chair to which he aspires. The publicity of the trial has always been found a sufficient guarantee against an error of that kind, which is so frequent where the concours is unknown.

The trials *(epreuves,)* according to which the candidates in a French concours are to be judged, are, as we remarked in a former article on this subject, three in number. The first and second consists in the examination of two patients during a quarter of an hour, and the delivery of a clinical lecture for one hour on the cases so examined. Twenty minutes are allowed to each candidate to arrange his ideas and reflect on the case, immediately after he has examined the patient, and before he commences his lecture.

The third trial consists in a thesis on a subject drawn by lot, for the preparation of which the candidate is allowed a certain number of days, after which he again occupies the chair, and has to support his thesis, during an hour, against the argumentations of his adversaries, who attack him in turn. We should observe that each candidate delivers two clinical lectures of an hour, in which he is accompanied, in his examination of the patients, by his competitors and the judges, who examine the patients after him, and note any omissions which he may have made, &c.

Finally, the anterior titles, as they are called, form a third item in the estimation of the candidate's qualifications. These comprise the services he may have rendered to the profession in general, or to the peculiar part of the science connected with the chair for which he competes ; his discoveries and improvements, for example, in surgery, his literary qualifications, the works he has written, &c.

The concours of which we propose to furnish a report to our readers, was opened on the 16th of this month, at the

School of Medicine, to fill the chair of clinical surgery vacant by the death of Baron Boyer.

The first step taken, is the formation of a jury composed of twelve individuals, and these are chosen by lot, partly from the twenty-four professors of the School of Medicine, and partly from the Academy of Medicine; eight of the former being joined to four of the latter.

The first meeting was, as usual, merely preparatory. The names of the jury and of the candidates were declared, and the rules of the concours read aloud by the secretary. The jury was declared to be composed thus; for the Faculty of Medicine, M. Jules Cloquet, president; M. P. Dubois, secretary; MM. Dupuytren, Roux, Marjolin, Gerdy, Moreau, and Cruveilhier; — for the Academy of Medicine, MM. Larrey, Amussat, Renault, and Gemelie.

The list of candidates amounted to no less than ten; but one was excluded as not appearing when his name was called over, and a second, because he was ineligible, as not having fulfilled the time prescribed by rule from the period of his graduation. There remained, therefore, eight, viz. MM. Lisfranc, Velpeau, Sanson, Blandin, Berard the younger, Langier, Guerbois, and Lepelletier.

The names of MM. Lisfranc, Velpeau and Blandin, are sufficiently known to the English reader, and do not require any notice on our part. M. Sanson, though perhaps less known on this side the water, enjoys a well-deserved reputation at Paris, as an excellent practitioner, and the author of several excellent works; he is second surgeon to the Hôtel Dieu, and lectured, last winter, during the absence of Baron Dupuytren, to the great satisfaction of a large class of pupils.

M. Berard, brother to the professor of physiology, is a young man of much merit and promise. M. Lepelletier is a provincial surgeon, who, it is said, has quitted a large practice, and the direction of a fine hospital at Mons, to enter the lists against the *elite* of the profession in the capital. Of M. Guerbois, we know nothing, except that he was an old surgeon, and was lately placed in the hospital of La Charité, as successor to Boyer.

On gaining entrance into the amphitheatre of the School of Medicine, (says our Paris correspondent,) which we did with infinite difficulty, although we took care to present ourselves at least an hour before the commencement of the concours, the eye was struck by the spectacle of an immense sem-

icircular room, containing more than 2500 students and professional men of various ranks, whose interest in the events of the concours has been kept up throughout the whole course of the lectures.

Independently of the importance attached to the election of a surgical professor who is to be charged with the clinical instruction of a large body of Students, the present concours is rendered doubly attractive on account of the presence of M. Lisfranc, who now comes forward, we believe for the first time, as a candidate for the favor of a community which he has so often exhibited in colors unfavorable, and by many of which he is mortally hated. M. Lisfranc, in fact, although no one can doubt his high talents and reputation as a surgeon, is looked upon by the aristocratic part of the profession in Paris nearly in the same light as the Council of the London College of Surgery might regard a thorough reformer of medical abuses. About ten years ago, when there existed only two hospitals of clinical instruction in Paris, he received charge of *La Pitié*, instituted a new clinique, and soon raised it from obscurity to the reputation which it now possesses of being one of the best schools in which a student can commence his hospital studies. The rising reputation of *La Pitié* soon became an object of jealousy to the official proprietors of the *Hôtel Dieu* and *La Charité*, and a war of the most inverate nature, which has persisted to the present day, commenced between the professors of the school on the one part and of M. Lisfranc on the other. His quarrel with M. Dupuytren, if it did not originate in, was at least fomented by, personal considerations, and frequently gives occasion to a burst of vituperative eloquence directed against the Baron in the midst of a clinical lecture, which has the most dramatic effect. Perhaps it was the desire to see in what manner M. Lisfranc would comport himself before a jury composed of his ancient adversaries, that attracted such a multitude of auditors to the present concours; and whether it arose from real affection to the professor of *La Pitié*, or, as others said, to annoy M. Dupuytren, who is by no means a favorite, the air rang with thunders of applause, which was repeated during several minutes whenever M. Lisfranc presented himself in the amphitheatre. We can call nothing to mind of a similar nature, except the shouts which sometimes hail Mr. O'Connel when he presents himself to the *association* after a successful campaign of 'agitation.'

Velpeau was received with a nearly equal degree of affection, arising not only from his popularity, but probably as a testimony of the sympathy so generally felt for the ill-treatment he received at the last concours.

The jury, as we have before said, was determined on the 16th of June, when the preliminary measures were gone through. On the 17th, one of the candidates, chosen by lot, was accompanied by the jury to the *Hôtel Dieu*, at four o'clock, when he examined his two patients, and on returning to the school of Medicine, commenced his lecture about half past five. This was repeated by each candidate in turn, and composed the first trial.

We now propose to give as complete a view as our limits will permit, of the lectures delivered by the principal candidates, and shall then notice the theses and argumentations founded on them, summing up the whole by a review of the anterior titles possessed by each. In this manner we hope to give a good idea of an institution, which, though capable of abuse, is yet accompanied by high advantages. We commence with the lecture of M. Sanson.

Lymphatic Engorgement of the Breast.

'Our second patient, Gentlemen, was a female, thirtyseven years of age; she bears marks of a lymphatic temperament of body; several of the cervical ganglia, for example, are tumefied. She has now inhabited Paris for seventeen years, and during that time enjoyed a pretty good state of health.

Some time ago her menses became suspended, and remained so for the space of three months, after which the left mamma began to swell; the menstrual discharge has since then returned to its accustomed regularity, but the breast remains swollen and engorged; it became very large and hard; this produced considerable alarm in the patient's mind, and about six weeks ago she entered the hospital, ready to submit to an operation, if necessary. We proceeded immediately to examine the external aspect and relations of the tumor; the first thing with which we were struck, was the regularity of form it presented; the nipple was concealed in the substance of the tumor; the skin covering it was altered in color, and adherent to the surface of the gland; this latter body was very hard, solid, and resisting to the touch; it did not, however, adhere to the parietes of the chest, for it could be moved about in all direc-

tions, and raised up upon the hand. On examining the state of the lymphatic system in the neighborhood, we found some slight engorgement in the axilla, and the traces of lymphatic tumors under the clavicle; on the right side, the axillary, and subclavicular spaces were perfectly free from any swelling, &c. What is the disease with which this woman was affected? (Here the speaker entered into a minute examination of the different tumors which may occupy the breast, comparing them with the case before him, and pointing out the characteristic differences.) The tumors to which the mammary gland is liable are numerous, and very different in kind. The present swelling might, for example, be produced by the presence of an encysted tumor; but the latter usually offers a round or globular tumefaction, and is not marked by the density and hardness which characterize the disease before us. It might be a chronic inflammation of the mammary gland itself, and this is an affection which is very often mistaken for scirrhus. There are numerous examples on record, where the breast has been extirpated for a cancerous affection which was afterwards discovered to be nothing but a chronic inflammation. With respect to our patient, we may remark that scirrhus is generally developed in a slow and gradual manner, while her disease is comparatively of short duration; the scirrhus tumour is also less smooth and even; it presents a much greater degree of hardness, and is usually more adherent; the tumor with which this woman is affected is, as I said, round, and we do not feel any inequalities on its surface. The simple adherence of the skin to the subjacent tissues is not sufficient to prove a cancerous nature; besides, the woman is now quite free from pain of any kind. The sunken appearance of the nipple might, at first sight, seem a suspicious circumstance, but we found the same disposition on the other breast. From a review of the symptoms, and a consideration of the history of the case, I would say that our patient has had a chronic inflammation of the cellular tissue of the mammary gland; this has affected chiefly the external cellular tissue surrounding the organ, and it is not improbable that the interstitial tissue is also engaged in the disease.

The state of the lymphatic ganglia may be also taken as an additional proof of the non-scirrhus nature of the disease; they are not, as we before remarked, affected with the degree of hardness peculiar to scirrhus; besides, they do not occupy the situation which the glands enlarged in consequence of a cancer-

ous disease of the breast usually do. These are commonly found situated in the region of the axilla, while the engorged glands in our patient were placed under the clavicle. I therefore think the disease, in the present instance, is a simple inflammation of the cellular tissue surrounding the breast, and is by no means of a cancerous or a malignant nature.

As to the treatment, amputation is evidently an unnecessary operation, and not to be thought of. The diagnosis is, consequently, less grave, and the therapeutic means should consist simply in the employment of antiphlogistic measures. A number of leeches should be placed round the circumference of the tumor. There is a remark, besides, which I had forgotten to make, relative to the diagnosis. The woman says her breast was larger before her entry into the hospital than it is at the present moment, and that its volume was reduced by the use of cataplasms; this is an additional argument of some weight against the idea of a scirrhus engorgement. I would therefore continue the cataplasms, as they have already been useful, with local antiphlogistics, and might perhaps assist their action with the internal administration of mercurials. The resolutive power of iodine is well known to every surgeon; it would therefore be proper to employ frictions of iodine or mercury over the surface of the gland; but the former medicine requires to be employed with care, as it often produces very considerable irritation of the skin. General warm-baths might be advantageously administered, and, finally, compression. (Here the speaker entered into several practical considerations on the importance of compression.) This is a means of the utmost utility in obtaining the resolution of several tumors, and has produced excellent effects even in cases of cancer. Where the case is nothing but a lymphatic engorgement, compression may be used with wonderful success; the manner of employing it is simple, and we cannot follow a better than that proposed by M. Recamier, by whom it was first introduced to the notice of practitioners. It is necessary to remark, that we should be careful in managing the compression and watching its effects, especially in cases of scirrhus engorgement, otherwise it may aggravate the disease, and hasten the cancerous degeneration of the tumor. The utility of this method is, as I have said, decided; I have seen engorgements, having many characteristics of scirrhus, completely dissipated by compression.

On the Advantages and Disadvantages of Immediate Union of Wounds.

This subject broaches a point which is greatly in dispute between the French and English surgeons. The favor with which Hunter's doctrine is received and followed up in England, constitutes the chief difference of practice between the surgeons of both nations. Let us, therefore, hasten to see in what point of view it is regarded by one of the best practitioners in the French capital.

'M. Sanson commences by a definition of immediate union, which he calls 'the operation by which the surgeon places in contact the opposite points of a wound, to determine adhesion without suppuration, or with the least suppuration possible,' and then proceeds to expose the phenomena accompanying wounds without suppuration, and compare them with the accident of suppurating wounds, in order to determine the relative advantages, &c.

Chaps. I. II. & III. — The first and second chapters contain a good description of the local and general phenomena exhibited by wounds which unite without suppurating. The third enumerates the conditions favorable to union by the first intention, which are,

1st. The existence of life in the two surfaces and a free circulation.

2nd. The wound must be recent; the shorter time it has been exposed to the air, the more apt it is to heal without suppuration.

3rd. The wound must be exempt from contusion. However, says the author, very justly, the action of a contusing body, though even violently applied, does not always render union by the first intention impossible. Amongst the wounded of July 1830, M. Sanson treated a young man who had the middle of the thigh traversed near its centre by a ball; there was no eschar; the wound united in a few days by the first intention, and the two orifices alone suppurated. Hunter and Larrey have seen several similar cases.

4th. Foreign bodies in the wound are an obstacle.

5th. The conditions of age influence the facility of union or non-union; it is more easy the younger the individual is.

6th. Conditions of season and climate; witness the brilliant success obtained in Egypt by Baron Larrey and by Clot Bey.

7th. Finally, a most important condition is, that the surfaces of the wound be retained in *immediate* contact, during the whole time necessary for the organization of the coagulable lymph.

Means for favoring union by the first intention: — 1st. Situation of the parts; 2nd. Agglutinatives; 3rd. Bandages; 4th. Suture. An examination of the cases in which suture is applicable. Surgeons generally agree to reject the suture from the treatment of wounds of the limbs; however, Delpech has lately employed them after the great operations, without the inconveniences generally attributed to them.

Chap. IV. — General means proper to assure the success of immediate union. It is not enough to place the surfaces in contact; the surgeon must endeavor to remove all complications which may disturb the process of union. These most commonly are, — pain, excess or absence of inflammation, general debility, derangement of the primæ viæ.

Chap. V. — *Local Phenomena of Suppurating Wounds.* — Three main circumstances may vary the march of a suppurating wound, without changing the essential phenomena. These are, 1st, A considerable separation of the edges of a simple wound, abandoned to itself; 2nd. An extensive loss of substance; 3rd. Contusion or disorganization of various tissues.

Here follows a full description of the phenomena observed in these three cases: The change of aspect in the wound; the formation of a thin fine membrane at the bottom, which soon becomes the pyogenic membrane; the formation of small fleshy vascular masses called granulations; the contraction of the wound, depending on the remarkable retractile property of the granulations; cicatrization; and the union of the divided tissues by a thin layer of a fibro-cellular matter, the 'tissue inodulaire' of Delpech. So much for the first care. In the second, the process is slower, and varies according to the different tissues; in the third, the elimination of the disorganized parts must take place, before any attempt at healing goes on.

Chap. VI. — *General Phenomena of Suppurating Wounds.* — 1. Development of the traumatic fever, or during a later period the patient is exposed to accidents of a dreadful nature, which have been attributed in turns to phlebitis or purulent absorption. 2. Action of the wound on the brain or general economy, wasting the force of the patient, occasioning hectic fever, &c.

Resumé. — From the preceding observations it follows, that when a wound is healed by the first intention, we obtain the following advantages: — 1. The solution of continuity is reduced at once to the smallest limits. 2. The united parts are withdrawn from the action of the air, &c. 3. Little local inflammation, pain, &c. 4. The treatment of short duration is not likely to derange the health of the patient. 5. After a cure the cicatrix is linear, and does not impede action of subjacent muscles. — In suppurating wounds we have as disadvantages, — 1. The long exposure of the wound to the air, &c. giving rise to pain, irritation, &c. and, as a consequence, severe traumatic fever. 2. The danger of its reaction on the head or principal viscera; however, says M. Sanson, in the greater part of cases, we have merely the constitutional fever. 3. Finally, the accidents of too great suppuration, and the length of the disease. As to the dangers of *phlebitis*, he proposes to speak of it presently, noticing, however, that the accident most frequently occurs after amputations, and in cases of wounds combined with fracture. Besides these inconveniences, there is the danger of hospital gangrene coming on, and the extent of the cicatrix.

Here are decided advantages of union by the first intention, considered generally. But to decide the question of the thesis with any accuracy, it is necessary to establish some division of wounds, and consider union in each; the author, therefore, distinguishes, 1st, wounds properly so called; 2nd, wounds made by the surgeon, excepting amputations; 3rd, amputations.

Chap. VII. — Union considered in Wounds, properly so called. Historic view. — Union by the first intention employed by Hippocrates, Celsus, &c. afterwards abandoned — the origin of a mixed method, which consisted in uniting a great part of deep wounds, and maintaining the other part open, by means of a tent, which might favor the discharge of the fluids, and avoid the inconveniences arising from their stagnation.

It is now generally admitted, that union by the first intention should be tried.

1. For all wounds produced by cutting instruments, whenever the edges can be brought together, and the wound does not contain a foreign body, &c. The lesion of a considerable artery is no obstacle, for the traject of the thread alone may suppurate.

2. For contused wounds. When the contusion is feeble, or not violent, it affects only the superficial parts.

A contusion, though it might be judged enormous from the cause producing it, does not always contra-indicate immediate union; and here the author draws a practical distinction of value. Bodies projected by powder, do not always produce wounds which represent the form and size of the projectile; they sometimes give rise to extensive lacerations, irradiating from the wound itself. Here immediate union may be tried. The author has seen M. Larrey, in cases where one or even both jaws have been carried away, and where all the soft parts of the face were horribly lacerated, succeed in reducing the wound to a simple one, by cutting away the edges and angular projections, &c.

3. Wounds arising from divulsion. When a portion of the body has been suddenly torn away, the only way to diminish the extent of the wound is to apply at once all the parts that can be brought together.

Immediate union should not be tried,

1. In poisoned wounds;

2. In incised wounds, if they are so irregular, &c., that the opposite surfaces cannot be brought together without leaving intervals, unless the intervals be so placed that any fluid collected may be evacuated by a counter-opening;

3. Where there is a foreign body in the wound or effused blood, &c. which cannot be completely removed;

4. In cases of injury to a duct, where union would produce effusion;

5. In cases where it would require great force to bring the edges of the wound together;

6. Gunshot-wounds (as a general rule) and contused wounds. Having thus established the indications and counter-indications of immediate union, M. Sanson describes the rules of dressing. In all cases, he advises to wait until the flow of blood be completely arrested before the wound is closed; he also cuts off one end of the ligature; where the wound is extensive and the ligatures numerous, he assembles them in different bundles to be brought out at the corresponding angles. In order to moderate the inflammation, M. Sanson praises much the application of cold water for three or four days, so as to keep up a constant low temperature, joined to humidity.

These generalities laid down, the author examined wounds in the different regions of the body.

Wounds of the Integuments of the Skull. — Simple incised wounds to be united at once, and covered with a compress

dipped in cold water. When the wound presents a flap, the base of which is downward, the point generally retracts and leaves some part of the bone denuded. Here the suture should be employed. Petit recommended making a counter-overture at the base of the flap to prevent the accumulation of pus, &c., but M. Sanson does not think that necessary. But these wounds are often attended with dangerous complications, as intolerable pain from incomplete division of the nerves, inflammation extending under the aponeurosis, and terminating in suppuration, denudation of the skull, meningitis, &c. The development of these accidents may, in many cases, be prevented by leeches, applied behind the ears for several days, and sinapisms to the lower extremities, with laxatives or diluents to the intestinal canal; but if in spite of these means inflammation declares itself, we should not hesitate to remove all the means employed for union, and to divide the tissues down to the very bone.

Wounds of the Face and Neck — penetrating Wounds of the Chest. — When these are accompanied by effusion of blood into the chest, surgeons are divided on the treatment. Paré advised keeping the wound open, to prevent the accident of suffocation, &c.; others, amongst whom is one of the judges, act diametrically opposite, and close the wound in order to stop the hemorrhage. M. Sanson does not attempt to resolve this question or give a decided opinion.

Penetrating Wounds of the Abdomen are to be united immediately whenever the viscera are free, easily reduced, and preserve their integrity.

Wounds of the Limbs. — Under favorable conditions, all these wounds should be united by the first intention. Larrey has proved that incised wounds penetrating into joints, and even injuring the bone, may be cured by immediate union. He divides at first, to discharge any blood effused into the cavity of the joint, removes any portion of bone or cartilage injured, and then fixes the limb immovably. In this way he cured at Cairo, a wound of the shoulder-joint. There was no suppuration, and the limb preserved its motions. A more important question is to decide whether or not we ought to try immediate union in wounds complicated with fracture, and surgeons are much divided in opinion upon this point. The numerous cases of unsuccess where union has been tried, induce many to prefer amputation. However, there are cer-

tainly cases of exception: thus, whenever the fracture and wound are free from contusion, or when the fracture is indirect, and the wound is produced by the fragments being driven outwards, it is easy to reduce the injury to the conditions of a simple fracture. M. Sanson has treated several cases of compound fracture of this kind successfully, by closing the wound and employing cold to prevent inflammation. In all other cases it is generally admitted that amputation is required; however, the remarkable results obtained by the immovable apparatus of M. Larrey, again render the question undecided, and new facts are required.

PART II.

On the Immediate Union of Wounds resulting from Surgical Operations, except Amputations. — Immediate union is applicable to a vast number of surgical operations, which the author examines, but which we cannot even enumerate here. The cases to which it is not applicable are, according to M. Sanson,

1. When the operation has been performed to evacuate a fluid, or where a natural duct is obliterated, as after trepanning for effusion, bronchotomy, &c.
2. When it is right to obtain cicatrization from the deep towards the superficial parts, as in fistulæ in ano.
3. When a foreign body is not extracted by the first incision made, but it is necessary to operate second time.
4. When it is probable that suppuration is inevitable.
5. When a duct is opened and the effusion of its fluid is inevitable.
6. When we wish to destroy adhesions, bridles, &c.
7. When it is necessary to re-establish a duct or an obliterated orifice.

PART III.

On the Advantages and Disadvantages of Immediate Union after Amputations. From the preceding brief sketch of the opinions detailed by M. Sanson in the thesis before us, it will be seen that the practice of French surgeons, with respect to the union of wounds, &c., differs very little from that followed in England. In the treatment of amputations, however, the difference is much more marked, and if success be taken as a criterion of the two methods, the superiority undoubtedly rests with English practice. We have no means of obtaining the results of

amputations performed at the London hospitals; but we may say, without fear, that the mortality, on an average, has never amounted to one-third of those operated upon,— the result of the practice of two of the most celebrated surgeons in France, MM. Dupuytren and Roux.

'The honor of applying immediate union after amputation belongs, says M. Sanson, to Lowdham; the process was improved by Cheselden in England, and by Petit and Louis in France, who gave a better form to the stumps; it soon became the favorite practice in England, and also in Germany, where it was vigorously advocated by Langenbeck and Graefe. In Italy the partisans and opponents were nearly equally divided. In France it was adopted by Desault, and practised by Baron Percy, who, after the affair of Neubourg, obtained wonderful success by this method (ninety-two amputations, eighty-six cures). At the present day, in France, it is recommended by Professors Dubois and Richerand, and Maunoir of Geneva; while Pelletan, Boyer and Larrey, reject it; MM. Dupuytren and Roux employ it only in a few particular cases.

To what are we to attribute such a difference of opinions? Is the question resolved by the results?

In a thesis of M. Avery, 353 cases of amputation are collected from the practice of Alanson, Freer, Kenedy, Lucas, Percy, Lawrence, Maunoir, Dubois, and Hammick; the number of deaths were eighteen, or nearly one-twentieth. Again, in ninety-five amputations, thirty-eight treated by immediate union by M. Roux and Dupuytren, (who lost one-third,) and fifty-seven treated in the same manner after the siege of Antwerp (one-sixth lost), the average of deaths was about one-fifth; and if we examine the practice of Alanson, Lawrence, Percy, &c., we find that some did not lose a single patient in thirty-six operations, while others lost one-ninth, one-tenth, one-fourteenth, &c.

If we add the cases of Roux, Dupuytren, and Larrey, to those quoted above, we have 448 operations and thirty-eight deaths, or one-twelfth.'

Such are the statistical details given by M. Sanson, but from which he draws no conclusion whatever; he seems to us, however, to have neglected a most important element of comparison — viz. the statistical results of amputations treated by the second intention, which he could easily have had from the Hôtel Dieu, La Charité, La Pitié, &c. If we mistake not,

M. Dupuytren, who treats his patients by a mixed method, loses one-fourth, a proportion very much more unfavorable than one-twelfth.

We now arrive at the termination of the thesis, in which the author gives a resumé of the advantages and disadvantages of immediate union after amputation.

The advantages have already been noticed under the head of wounds in general; it is unnecessary to recur to them. The incoveniences evinced by the opponents are: —

'1st. *Hemorrhage.* — Pelletan has much insisted on the danger of bleeding, which he says is more frequent after union by the first intention. M. Sanson regards this objection as of little value. Now a days the ligature is so perfected, that any danger from its relaxation, or premature division of the vessel, is slight. Besides, the inferior angle of the wound may be left open, so as to give exit to any fluid.

2nd. *Purulent Collections.* — This also is an objection of Pelletan, which the author shows to be unfounded.

3rd. *The sudden Suppression of a Long standing Suppuration.* — This is not applicable to amputations practised for recent injuries, &c. Where the suppuration is of such a kind as to improve the general health (and this may happen), it should not be suddenly suppressed.

4th. *Phlebitis.* — This M. Sanson regards as the most important point of the question: viz., to determine whether immediate union is more favorable to the development of phlebitis than the method of allowing the wound to suppurate, because the greater number by far of patients who die after amputations in the hospitals, are carried off by phlebitis. This accident may occur after any kind of dressing, but it remains to see if one species may not favor it more than others. Two circumstances seem more particularly to predispose to phlebitis: viz., suppuration, and the stagnation of purulent matter. Now from the nature of an amputation, &c., in some suppuration at least is inevitable, and it is also a necessary consequence that the pus stagnates more or less; the skin has always a greater tendency to unite than the deeper parts, the pus is retained, alters in quality, and is absorbed; hence with all its advantages, immediate union has the great disadvantage of placing the wound in circumstances most favorable to the development of phlebitis. On this account many French surgeons place a slip of lint all along the lips of the wound, and endeavor to heal the deep-seated parts first. This *mixed*

method, which M. Sanson regards as the most rational in the present state of surgery, is that employed by Boyer, Larrey, Roux, Dupuytren, &c. We cannot hope to obtain by it the rapid cures which sometims result from the method of primary union, but these rapid cures are rare ; the greater part of the cases require three weeks or a month, and the mixed method demands very little more time.'

Such is a brief analysis of M. Sanson's opinions on union by the first intention. We have not now time to discuss them, but leave our readers to judge whether, as he asserts, immediate union exposes more to phlebitis, than union by suppuration. The doctrine laid down in the conclusion of the Thesis seems to be universally admitted in France, for not one of the argumentators objected to the fundamental proposition by which immediate union of the whole stump after amputations is rejected. The French surgeons, then, endeavored to heal by the first intention the bottom of the wounds, while they force the surface to suppurate.

Remarks of M. Velpeau, and Replies of M. Sanson.

M. Velpeau commenced by an eulogium on the thesis of M. Sanson, which, he said, exposed the merits of the question he had to treat in a very clear and satisfactory manner. There were, however, several points which he expected to find noticed in the thesis, that were passed over in silence. Thus, for example, there was no mention of renewing the dressings frequently, as a means of favoring union by the first intention, although every one knew that it was a main object to keep the wound clean, and free from all irritating matters.

M. Sanson answered, that union by the first intention should be established more or less perfectly in two or three days from the first dressing; if union do not take place within that time ; the wound becomes a suppurating one ; now, as the first dressing always remains on longer than the time above specified, it was not necessary to mention the change of dressing as a means of favoring the union.

M. Velpeau said this might perhaps be true, if a complete and perfect union took place within the first few days, but as a perfect union of the divided parts never did take place, as the wound must necessarily furnish more or less suppuration, he thought the renewal of the dressings was a capital point of the treatment, and should not have been neglected.

M. Sanson returned to his former explanation. It was a matter agreed upon universally, not to remove the first dressings after an amputation, before the sixth day, unless some accident rendered it necessary. There was not a surgeon in Paris who did not conform his practice to this rule; now, as all that could be expected from union by the first intention must obviously occur within six days, he did not see the necessity of mentioning 'renewal of the dressings;' the wound was either united, or had become a suppurating one, before the surgeon ever thought of changing the apparatus.

M. Velpeau. — There is another means of favoring union by the first intention which you have neglected to mention, although it has often been employed with success, and is, in my opinion, a secondary means of great value — compression.

M. Sanson said that his experience led him to a conclusion diametrically opposite. He considered compression, and every thing that might tend to irritate the wound and disturb the process of union, as essentially bad; this was his reason for not mentioning compression.

M. Velpeau. — In page thirteen of your thesis, you say, in speaking of conditions favorable to primary union — 'It is necessary that the wound be recent. The shorter time the wound has remained exposed to the air, the more apt it will be to heal without suppurating. The chances of obtaining this mode of union diminish in proportion as the wound inflames, and fleshy vascular granulations spring up.' Although this may be true as a general rule, it is not strictly applicable to all cases, and the exceptions should have been mentioned. Thus we may have union of a wound by the first intention after granulation has commenced; besides, you have altogether neglected to speak of those cases where a suppurating wound has suddenly changed its character and united by the first intention, although the edges have remained open for five or six days.

M. Sanson considered the condition mentioned by him as one necessary for immediate union; where granulations are once formed, immediate union is quite impossible. As to the cases quoted by M. Velpeau, they were not examples of union by the first intention, at least according to the definition of the term which M. Sanson had laid down, and which he read, 'The operation by which the surgeon places in contact the opposite points of a wound, to obtain adhesion without suppuration, or with the least suppuration possible.' When a wound

unites, after having remained opened for four or five days, it is manifestly the union of a suppurating wound.

M. Velpeau. — In page 110 you describe a mixed method of treating wounds after amputations, which consists in placing lint between the edges of the wound, and allowing only the deep parts to unite by the first intention. You say this is the method recommended by Boyer, and also the same which M. Dupuytren and Larrey follow on some occasions. Now, if I am not greatly mistaken, M. Larrey unites his stumps at once, and M. Dupuytren certainly does not put a rouleau of lint between the lips of the wound; besides, at page 50, you condemn this very method, when you say that 'tents of lint often act contrary to the purpose for which they are applied in stopping the wound, and cause a stagnation of the pus, &c.' Your method therefore is merely the method of O'Haloran, and is condemned by yourself.

M. Sanson.—There is so little difference between the method which I have described, and that followed by M. Dupuytren, M. Roux, &c, that I am justified in classing them under the same head. I place the lint along the lips of the wound; they place it perpendicularly, extending from the bottom to the surface; the intention, however, is the same, to prevent an accumulation and retention of pus, and this method is applied only when the circular incision has been employed, not after flap operations; besides, wounds made while amputating, are different from other wounds, and require a special treatment; the remark in page 50, to which you object as a contradiction, was applied to wounds in general, not to amputations, which I have in my thesis distinguished from the former.

Remarks of M. Lisfranc, and Replies of M. Sanson.

M. Lisfranc's first objection was founded on a passage, page 29, in which M. Sanson speaks of the suture after amputations, and rejects this means, as likely to bring on irritation and contraction of the muscles through which the suture is passed, although Delpech has employed it with advantage after disarticulation of the extremities, &c, without experiencing the above-mentioned inconveniences. Here, said M. Lisfranc, is an error which should be corrected. Delpech certainly employed the suture after amputations, disarticulation, &c. but not in the manner which you have described; he carefully

avoided passing the thread through the muscles, tendons, &c, and merely embraced the skin and subjacent cellular tissue. The ideas of Delpech on this point have been published, and you will find them in the thesis of M. Serre of Montpellier.

M. Sanson was obliged to confess his error after the authority quoted by M. Lisfranc. He had supposed that Delpech embraced the muscles as well as the skin of the suture. Perhaps he had been led into this error by what he had observed in Germany, where he had often seen the suture employed, and remarked that it failed whenever the muscles, &c, were comprehended.

M. Lisfranc did not mean to defend the process of Delpech, of which he was far from approving; he merely wished to correct the error into which M. Sanson had fallen, and concluded by stating, that a means upon which Delpech placed more reliance after amputations of the thigh than the suture, was to place an assistant by the patient, who kept up a gentle pressure on the surface of the stump for a considerable time after the operation. This he found to be the most efficacious means of preventing the convulsive retraction of the muscles which so often renders it impossible to keep the edges of the wound together. (The next point gave rise to a very warm discussion between the candidates.) In speaking of wounds of the head, (page 67) M. Sanson says, that they 'are often complicated with pain, hemorrhage, and extension of the inflammation under the cranial aponeurosis, &c. These accidents are to be combated by the appropriate means, particularly by bleeding, proportioned to the age and strength of the patient.' Often, says the author, leeches behind the ears, compresses dipped in cold water, sinapisms to the legs, with laxitives have succeeded in preventing the development of inflammation in cases where it seemed most imminent. If, in spite of the well-directed use of these remedies, inflammation of the sub-aponeurotic cellular tissue should set in, we have nothing to do but at once abandon all hopes of uniting the wound, and make large incisions *(deleridements)* down to the bone. M. Lisfranc now attacked this practice very warmly, and denominated it as altogether faulty. In cases of inflammation under the cranial aponeurosis, it is not necessary to have recourse to incisions as soon as inflammation declares itself. The surgeon should first endeavor to combat the inflammation by local bleeding, and particularly by revulsions on the intestinal canal. This was the practice followed at *La Pitié;* the facts were

well known, and it was demonstrated that the necessity of incisions was often dispensed with by a sedulous attention to the principles he laid down. M. Lisfranc quoted many cases in which he had succeeded in arresting the species of inflammation alluded to, by acting on the intestinal canal, &c. and concluded that M. Sanson was in error in confining his antiphlogistic treatment to a prevention of inflammation, and not continuing it after the developement, reserving his incisions for cases where these means failed.

M. Sanson. — (This was an objection which M. Sanson found some difficulty of answering in a satisfactory manner, not so much from want of good reasons, but because it was necessary to take the spirit of the passage rather than the actual words. He, therefore, commenced by reading the passage which we have quoted, amidst considerable laughter excited by the way in which M. Lisfranc pronounced at every third word, 'bon, bien, &c.') M. Sanson remarked, that the employment of local bleeding, purgatives, derivatives, &c, was mentioned and recommended by him. If these failed he saw nothing to be done, except to have recourse to incisions. From a strict interpretation of the words, it might, perhaps, follow, that he only used antiphlogistics to prevent the developement of inflammation; but it was evidently understood that the preventive measures were to be continued after inflammation appeared; any surgeon would comprehend him in this manner.

M. Lisfranc said he did not know what M. Sanson might have had in his head, he only knew what was written in the thesis, and it followed from M. Sanson's words, that as soon as ever inflammation of the cranial-sub-aponeurotic substance set in, he had recourse to incisions, without using those general means which the practice of M. Lisfranc, at *La Pitié*, showed to be successful. In page 64 (M. Lisfranc continued) you blame the advice of Petit, who recommends the surgeon to make a counter-opening near the base of the flap, in wounds of the cranial integuments, in order to avoid the inconveniences which would arise from the accumulation of pus between the flap and and the bone; you prefer the immediate application of the flap supported by compresses, sutures, &c. I cannot agree with your condemnation of Petit's practice; the formation of pus between the aponeurosis and skull is a dangerous accident, which the surgeon should avoid by all the means in his power. Now when the flap is closely applied, and the dressings are

left on for several days, there is great danger that purulent matter will accumulate under the integuments, become infiltrated into the neighboring tissue, detach the scalp largely, and aggravate all the accidents of the primary wounds. In some cases the distention by the pus thus confined has been so great as to lacerate the cicatrix of the integuments.

M. Sanson explained at some length the reasons for adopting his opinion. Like you, said he, I commenced by making a counter opening, but I soon found that Petit's method was neither necessary nor advantageous, and that it was much better to retain the parts in perfect contact. It is evident, that the best means of preventing the pus from spreading under the fascia, is to prevent its formation altogether, and this is best attained by the method which I employ ; besides, if pus begin to be formed, the surgeon cannot long remain ignorant of the fact. The patient suffers more than ordinarily, and complains of pain, tension, &c. The dressings are removed, and the existence of any fluid under the thin layer of integument which covers the skull is very easily ascertained. It is now time enough to make an opening for the discharge of the matter, and I think that we may advantageously dispense with the preventive incisions of Petit.

M. Lisfranc. — But if the patient suffer sufficiently to draw your attention to the wound, it necessarily follows that pus is already formed, and the mischief done which Petit's counter-opening would have prevented. Besides you recommend a methodic pressure on the flap, but you do not confine this means to any peculiar kind of wound, as you should have done. To what kind of flap would you apply pressure, or would you use it with all, indifferently ? In cases where the base of the flap is very narrow, the circulation difficult, &c. (and this often occurs in wounds of the scalp,) methodic pressure may interrupt the feeble circulation through the strip of flesh connecting the flap with the rest of the integuments, and tend to produce gangrene. Now all surgeons, wherever there is any fear of gangrene being produced, avoid the use of pressure, and have recourse to the suture.

M. Sanson said, that his remark applied only to cases where the base of the flap was large and extensive. When the wound is narrow, there is no occasion to employ pressure, as the parts have not the same tendency to retract and keep the edges of the wound open.

(The time here expired.)

Remarks of M. Berard, and Replies of M. Sanson.

M. Berard. — Our space will not permit us to give this argumentation at any length, although he made many of his objections tell. He commenced by repeating and enforcing an objection already offered by M. Velpeau, viz. that M. Sanson had altogether neglected mentioning the healing of wounds by the second intention. There were three principal forms in which wounds heal, — by the first intention, by suppuration and granulation, and by the second intention ; this latter form was perhaps as frequently seen as either of the two others, and he had expected to see its advantages discussed.

M. Sanson remarked in reply to this, that it was not a question which he had to treat; besides, it came under the head of suppurating wounds. The next point was debated warmly.

M. Berard insisted that serous membranes were not vascular, and quoted Bichat, many modern anatomists, and several judges of the concours, who were of the same opinion.

M. Sanson answered that he had injected the free surface of a serous membrane, and that he desired no better evidence than his own eyes ; he had also seen pathological preparations which proved the same fact; besides, he did not want authorities to support his opinion.

M. Berard finally reproached the author with an inconsistency, in saying at one time that the ligature tended to plug up the wound and retain the pus, while at another he said they served to conduct the fluids to the angles of the wound ; besides, he had neglected to mention the method practised by the English surgeons, who, instead of assembling the ligatures in bundles, and drawing them out at the corresponding angles, bring each ligature down singly in a perpendicular direction ; by this means the thread traversed the least possible space, and the irritation was, consequently, less.

M. Sanson did not seem well to understand this objection, for he denied the possibility of bringing all the ligatures perpendicularly out, and we left M. Berard constructing an equilateral triangle with the sides of the stump, the apex at the bone, the base inferiorly, and endeavoring but in vain, to demonstrate to the surgeon of the *Hôtel Dieu*, that he could let fall any number of perpendiculars from the sides of the triangle upon the base. M. Sanson affirmed, in reply, that the perpendiculars would be all oblique, from which we concluded that he was a much better surgeon than mathematician.

INTELLIGENCE.

Health of Boston.—The influenza is now epidemic in our city. Countless multitudes have within the last two weeks been affected with it. Scarcely a family, indeed we might say, scarcely an individual, has escaped an attack, either more or less severe. Its symptoms are almost infinitely varied. In general, there is severe headache, rigors, lassitude, and other symptoms of access of fever, attended by cough, sore throat, dyspnœa, pain in the chest generally or locally. The cough is generally loud and free, and often in paroxysms, attended with little expectoration. The attack is for the most part sudden, and not unfrequently creates much alarm in the patient; but the disease thus far, seems to have yielded readily in almost every instance. Cathartics and sudorifics, or at most emetics, seem to be all that is requisite. Bleeding and blistering are seldom resorted to, or required. The duration of the disease, is from three days to a week.

Baron Dupuytren.

We learn from a correspondent from Paris, that M. Dupuytren has resigned his office of surgeon to the Hôtel Dieu, in consequence of his second attack of paralysis. He no longer goes out: the last visit he paid was to M. de Rothschild, who, ten years ago, paid him 100,000 francs for the restoration of a broken thigh. M. Dupuytren, however, still continues to give advice at his own residence, and speaks with great coolness of his health, it is said, allowing himself not longer than three months more to live. He will leave five or six millions of francs to his daughter, Madame de Beaumont, whose husband is a Peer of France. — *Lond. Med. and Surg. Jour.*

Died, M. Joseph Giobert, professor of Chemistry as applicable to the Arts, of Turin. He was a pupil of Lavoisier and Fouveny, and contributed, more than any other learned man, to the improvement of chemistry in Italy. — *Ib.*

Ointment for the Itch. Dr. Hospital employs in the treatment of this disease about twelve ounces of the following:

℞ Lac. Sulph. ʒ iss.
Pulv. Chlorur. Calcis ʒ ij.
Axungiæ ʒ vj.

Amer. Jour. Med. Sc.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

General Considerations on Fever.

A Lecture delivered at the Medical School, Park Street, Dublin, by WILLIAM STOKES, M. D.

GENTLEMEN, — It may be safely asserted, that, in the whole range of medical science, there is no subject on which so much has been written and so little known as fever. You will find, in the writings attributed to Hippocrates, a series of observations on the rise, progress, and termination of febrile affections, which, it must be acknowledged are characterised by singular beauty and truth; and I think I may venture to say, that such is their extreme accuracy, such the comprehensiveness, acumen, and power of the master mind that made them, that scarcely a single one has been overturned by the researches of modern times. From the period of Hippocrates almost down to the present day, the contributions to this department of medicine, though numerous and varied, were of very inconsiderable importance; they effected little towards the improvement of our knowledge of fever, and many of them were calculated rather to puzzle and mislead, than to throw light upon what was difficult and obscure. In place of studying the phenomena and effects of fever, instead of applying themselves to what was tangible and useful, the minds of medical men were occupied in tedious but profitless attempts to discover the proximate cause of fever, and it was to this subject that the

labors of some of the greatest men in medicine were exclusively directed for a series of years. The consequence of this was, that our knowledge made no real progress, and as little was known about fever in the time of Cullen and Brown as in that of Hippocrates. We had innumerable discussions as to its cause and nature, we had a vast quantity of learned writing and ingenious speculation, but they produced nothing available for practicable purposes, nothing tangible or real. The investigators failed, because they reversed the Baconian method of arriving at the truth; they first built up a theory, and then thought to make the phenomena of nature square with it; they forgot that, to be truly philosophical, we must first collect, compare, and arrange facts; and, when we have done this, we may deduce from them a theory, cautiously, and with a strict regard to truth. They did not pursue this course, and the and the consequence is that they added nothing to the sum of our available knowledge. Their disciples knew nothing more than was known to Hippocrates; in fact, they knew less, for their notions on the subject of fever had reached them through an erroneous and distorted medium. The followers of Cullen viewed it through the theories of Cullen, the Brownists through those of Brown; both alike forgot nature, and both were consequently inferior to Hippocrates in true knowledge. They attempted to discover the proximate cause of fever, and they failed, as men generally do, when they attempt to investigate first causes. We know very little, indeed nothing, of the nature of first causes; they are, and will, in all probability remain forever beyond the range of human intellect. It may be argued, that Cullen and Brown did not seek to ascertain the first cause, but only the proximate cause of fever; but this is only a play upon words, both are shrouded in the same obscurity, and in both the same difficulty attends our investigations. Even suppose we say with Cullen, that fever is a spasm of the extreme vessels; or with Brown, that it is asthenia of the whole system, what do we learn by this, or of what use is our knowledge? Have we more defined and accurate notions of fever? — Certainly not. They failed, as all men do who occupy themselves in the fruitless labor of searching after first causes. There is but one First Cause, and even of Him we know nothing accurate, but what He has vouchsafed to reveal.

Modern pathologists have pursued a course very different from this, and the consequence has been that they have ar-

rived at the most splendid results. Instead of attempting to investigate proximate causes they have studied the *phenomena and effects of fever*, they have examined dead bodies, they have accurately appreciated the series of pathological changes they present, and endeavored to connect those changes with the symptoms. In this great work the French pathologists took a prominent part; indeed, I think it may be asserted, without fear of contradiction, that a vast proportion of our improved knowledge on the subject of fever is due to the French. It has been, I regret to say, too much the fashion to decry the labors of the French pathologists; but I believe this has been chiefly done by persons who would gladly possess the knowledge they affect to despise. The French pathologists have pursued with respect to fever the same method they have so successfully employed in the investigation of other diseases; and though their researches have not thrown any important light on its proximate cause, they have taught us a vast deal as to its phenomena and complications, they have established a great number of valuable facts, and unfolded a series of beautiful truths; and, I need not say, that it is in the appreciation of these facts that a proper knowledge of fever consists.

In the first place, they have strongly drawn the attention of the medical world to this great truth, which should be engraven on your minds, — *that mere fever, without local disease, is of very rare occurrence.* Here was a new and extraordinary light thrown upon the misty doctrines of the older pathologists. With them fever was a nonentity, something they endeavored to describe but could not, something apart from, and totally unconnected with, organic change. The result of this mode of viewing the question was a variety of crude hypotheses and fanciful speculations. Bear this always in mind, — mere fever, unaccompanied by local disease, is very rarely met with. Recollect, too, that it has been established beyond the possibility of doubt, *that fever, complicated with local disease, is the rule, and its non-complication the exception.* We have further learned from modern pathology, *that every system and every organ in the body may be, and frequently is, diseased during the course of fever, and that, in the vast majority of fatal cases, death is the result of one or many local inflammations.* We further learn, that the character and symptoms of fever are infinitely varied, and that the cause of this variation mainly depends on the seat, the number, and the nature of the

local affections. It is to these that we are to attribute the principal modifications in the character and phenomena of fever, and it is by these that its course and termination are mainly influenced.

Dr. Fordyce, in his work on fever, attempts to give a definition of the disease, and as I feel convinced that it is, if not a definition, at least one of the best descriptions of fever, I shall give it as nearly as possible in his own words. The style of this description is quaint but expressive. 'Fever,' says he, 'is a disease which affects the whole system; it affects the head, trunk, and extremities; it affects the circulation, absorption, and the nervous system; it affects the skin, fibres, muscles, and membranes; it affects the body, and it affects the mind; it is, therefore, a disease of the whole system in the fullest sense of the term. '*It does not, however*,' says he, '*affect the various parts of the system uniformly and equally, but, on the contrary, sometimes one part is more affected than another.*' This last observation is totally at variance with the idea that fever is a mere morbid condition of the whole system without reference to local lesions, for he expressly states that it does not affect the whole system uniformly and equally. This excellent view of fever seems to be borne out completely by modern pathology, and particularly the last part, where he says, that in cases of fever one part is more affected than another. We have, for instance, cerebral fevers, nervous, bilious, gastric, and catarrhal fevers, by which, it is to be observed, we do mean to imply that there is nothing more than simple disease of the brain, or nerves, or liver, or bowels, or respiratory system, but that in each of these fevers, disease predominates in some particular part. So that when we speak of these fevers, we speak of such a disease as Fordyce has described, in which one part of the body is affected more than the rest. In many of the schools you will still meet with Cullen's division into synocha, synochus, and typhus, a division by which we gain nothing at all, these terms being but mere words and no more. Will any one define what is meant by synocha, or synochus? Will any one say what is typhus? Will any one say that a particular class and character of symptoms and morbid changes apply to any of these affections? It would be quite impossible. What we generally find is, that in the different cases of what have been termed synocha, synochus, and typhus, though they may present the symptoms belonging to each separately, yet in these same cases, at some period or

other, the symptoms pass into one another so as to confound the original distinction. We have synocha to day, synochus to-morrow, and then typhus ; or we may have typhoid symptoms at first, and inflammatory ones afterwards, and so on. We find, too, *that similar causes will produce in different individuals essentially different forms of fever*, and hence it is that we cannot found any distinction of fevers on their exciting causes. Nothing is more common than to see in two patients the same lesion producing, in one the synocha, in the other the typhus of Cullen. Thus, whether we look to the progress, symptoms, or exciting causes of fever, we find that this division has no foundation in nature, and is purely scholastic. S nocha, synochus, and typhus, are but mere names without meaning, terms which belong to the dogmatism of theory, and not to the expression of truth, and yet it is dreadful to think of the numerous lives which have been sacrificed at the shrine of this dogmatism.

Fevers may be divided into two classes. We have, in the first place, fevers which we may call primary or essential, in which we find (as far as human investigations can go) affection of the whole system, of the fluids as well as of the solids. This general state of the whole system seems in such fevers to have the initiative, constituting the first step in the process of disease ; but it is also true, that, in almost every instance of essential fever, local disease springs up at some period or other of its course. We have, then, in these fevers this primary state of the system, the cause and nature of which are unknown, and we have this followed by various secondary lesions, affecting different parts of the body, and presenting characters by which we can arrive at a knowledge of their nature, more or less.

In the second class of fevers, we place all those in which the first affection is local, and the fever secondary. Observe the distinction between this and the former class. In the first kind, or primary, the local disease is consequent on the fever, in the secondary, fever is the result of local disease. Let us take an example of each. A person in health is exposed to the contagion of typhus ; he becomes languid and weak, has troubled sleep, bad digestion, and low spirits ; after some time what is called fever sets in, and during the course of this, various local diseases may supervene. In the other case, a person, also in health, from exposure to cold, or from some local injury, gets

an attack of inflammation of the lungs, or some other local lesion, and, as a consequence of that lesion, has symptomatic fever.

Now the relation which the fever bears to the local symptoms in each of these cases is different. In the first case, the fever is primary, and the local affections secondary; and it may happen that, although the local diseases may be modified or removed, the fever will still continue; but in the second, the fever always vanishes on the removal of the local disease. We have to enter on the consideration of the first of these to-day, and to examine that morbid state of the whole system in which local disease supervenes at some period of the fever, in other words, where the lesions of particular parts or organs are symptomatic of the fever.

I have already mentioned, that one of the great truths at which modern pathologists have arrived is, that local disease commonly occurs during the course of fevers. It has also been established, that, in the great majority of cases, the cause of death is one or more local inflammations. The experience of every candid pathologist is in favor of this doctrine. Patients seem to die of fever, but the fact is that some die by the brain, some by the lungs, others by the digestive system, that is to say, during the course of fever, they get diseases of various organs, some of the brain, some of the lungs, and a vast number of the digestive system, often sufficient to destroy life, if there was no fever at all. It is an undeniable fact, that, in the great majority of cases, there is local disease of some part or other of the body, and that a vast proportion of fever patients are carried off by local inflammation. How plain then is the deduction from these facts, that the man who neglects the viscera in fever is practising with his eyes shut.

So much for the first great fact of the complication of fever with local disease and its important bearing on practical medicine. But there is another general consideration with respect to these primary fevers, they have a tendency to terminate spontaneously; of the cause of this spontaneous termination we are still in ignorance. One of the most simple and familiar examples of this is the paroxysm of an intermittent. A patient, who is at present apparently in good health, will in the space of an hour or less be attacked with severe rigors, followed by all the symptoms of fever, a flushed countenance, hot skin, quick pulse, and high colored urine, and in some time afterwards a copious perspiration breaks out, which is attended with complete relief to the symptoms, and the patient gets

well again. From this time until the period of the next attack he continues to all appearance in health. Now, if we consider each of these paroxysms as an attack of fever, we see in them an evident disposition to terminate spontaneously. The same thing occurs in the case of the exanthemata. Scarlatina, measles, and small-pox, have a regular course, which generally terminates at stated periods; they also exhibit a succession of stages characterised by corresponding symptoms. We observe the same disposition to terminate spontaneously in most continued fevers, and it has been further remarked, that this spontaneous termination generally occurs on particular days. We have then two great leading facts in the history of all primary fevers, first, that they are most commonly complicated with local disease, and, in the next place, that they have a great tendency to terminate spontaneously and on particular days.

Now, gentlemen, you will please to observe, that a knowledge of these two very important facts furnishes us with two great indications, — one, to discover, and remove, or modify the local inflammations; the other, to support the patient's strength, so that he may not become exhausted during the progress of the disease, and thus lose his chance of this spontaneous favorable termination. These two indications, though apparently incompatible, are not so in reality. You will of course understand, that the extent, to which we pursue one or other of these indications, must necessarily vary according to circumstances. The rapidity, violence, and particular seat of the local inflammation, the duration of the attack, the age, sex, and constitution of the individual, all these are circumstances which must be taken into account in adopting any plan of treatment, whether calculated to remove local disease, or support the patient's strength.

The similarity between the different individual cases of fever, is too faintly shadowed out to amount to anything like identity, in fact, there are no two cases of fever perfectly alike. You might as well expect to find two human beings exactly alike as to find two cases of fever perfectly similar. The causes of this remarkable variation are reducible to the extent, variety, seat, and complication of local disease, and to the peculiarities of the patient's constitution. These two classes of circumstances produce infinite varieties in the appearance and character of fevers.

The followers of Brown saw nothing in fever but debility,

and their practice was to support the strength, and give stimulants from the commencement, ignorant of the fact, that neglected local inflammation will produce and keep up debility. The followers of M. Broussais, on the other hand, think that fever is sympathetic, that it depends on local inflammation, and that it must be subdued by depletion. Truth lies between. We must do both, we must combat the local inflammations by antiphlogistic means, and we must support the patient's strength by a well-regulated regimen. These two indications are by no means incompatible, but their application must vary according to circumstances. If it be true, then, that local disease is very common in fever, and a frequent cause of death, it is plain that to practise without a knowledge of the state of the viscera, would be acting like the physician mentioned by D'Alembert. He compares him to a blind man armed with a club, who comes to interfere between nature and disease. If he strikes the disease, he kills the disease, if he strikes nature, he kills nature.

A discussion has arisen in modern times, as to whether we should look upon all fevers as sympathetic. This is one of the leading doctrines of the school of M. Broussais. He declares that all fevers are sympathetic, that there is no such thing as an essential fever, or, in other words, that there never exists that peculiar morbid state of the *whole system* to which we apply the term fever ; that in all cases fever is the result of local lesions, and that on the removal of these lesions its cure will depend. To this conclusion the school of M. Broussais were compelled to come in consequence of their exclusive solidism. They endeavor to reduce all the phenomena of life, whether in a state of health or disease, to the mutual action and influence of the viscera and solid parts on each other. They are solidists, in the strict sense of the word, and can have no conception of fever as existing independently of some primary local lesion. But it seems that the leading points of this doctrine have not been able to stand the test of an impartial examination, and may at present be looked upon as disproved. You will see at once the importance of this, when you consider that if it be true, that all fevers are sympathetic, the practice must necessarily consist in the discovery and removal of local lesions, and no more. But I said that these doctrines are now disproved, and the following arguments may be laid before you in proof of this statement.

In the first place, let us inquire whether any cause acting

on the whole economy is capable of producing local disease. Mark, gentlemen, the object of our inquiry is to ascertain whether any cause operating on the whole economy is capable of producing local disease. Now, I believe it is quite certain that such is the fact, and that we may have, first, a morbid condition of the whole system, and, consequent on this, various local lesions. Several continental pathologists, but in particular MM. Gaspard and Magendie, have shown, by repeated experiments, that we can produce all the phenomena of typhus in the lower animals, by introducing putrid substances into the system. These gentlemen injected putrid substances into the veins of animals, and applied them to the surfaces of wounds, and, in every case where these experiments were performed, they observed that the animals became ill, had languor, loss of appetite, thirst, prostration — in fact, all the symptoms of bad typhus; *and, in case of death, that they exhibited, on dissection, local lesions corresponding with those we meet with in the human subject in fever.* Now, observe, these animals were, previous to the experiment, in a state of perfect health: they are, then, subjected to the operation of a cause which is found to produce a morbid state of the whole system; they die, and, on dissection, inflammation and ulceration of the mucous membrane of the digestive tube, and other lesions, are discovered in almost every instance. It would be quite absurd to say here, that the ulceration of the bowels was the cause of the morbid symptoms, for the animals were, previously, healthy. We can come to no conclusion, then, but that the introduction of putrid matter produced that morbid state of the whole system which is termed *fever*, and that the local inflammation was the result of this state. It is the same thing with respect to the exanthemata. A child is exposed to the contagion of small-pox; for some time nothing particular is observed; he then gets ill and feverish, and this is followed by an eruption of variolous pustules. Here we have a local disease consequent upon a circumstance affecting the whole system, and in this, as in the former examples, the local lesion is secondary. We might as well argue that the pustules were the cause of the symptoms in one case, as to say that the ulceration of the intestines was the cause of the other. Every one, I think, will admit that the pustular eruption in a case of small-pox is secondary, and not the cause of the symptoms; and the same argument will apply to the secondary affections of typhus. If it be true, as appears by M. Magendie's cases, that fever fol-

lows the introduction of putrid substances into the body, and that this morbid state of the system produces inflammation of the intestinal mucous membrane; if, too, we admit that in small-pox the pustules are secondary, and consequent on a morbid state of the whole system originating in contagion, the same argument will hold good in all cases of local inflammation (whether of the liver, lungs, brain, or any other organ), which may arise during the progress of fever. These facts are adduced in support of the first part of the argument — that local lesions may be and are consequent on that morbid state of the whole system to which the name of fever is applied.

The next thing to be observed with reference to this question is, that if it be true that typhus is merely symptomatic of local disease, it would then follow, *that there should be as constant a relation between the symptoms during life and the morbid changes seen on dissection*, as there is between the fever of pneumonia and the changes presented by the lung. But this is not at all the case, for we find that there is no constancy, no uniformity, either in the seat or extent of the local disease. Two patients will exhibit symptoms of typhus not differing in any material point, and yet, on dissection, you will find little or no traces of disease in the intestinal canal of one, in the other, you will find in the same parts a vast amount of disease. Two others will also present symptoms very similar; in the one you will find the lung healthy and normal, in the other, you will find it extensively disorganised. Would it not be absurd to assert here, that the fever was symptomatic of the local lesion, seeing that there is no constant relation between the symptoms and the morbid changes, either as to situation or extent? Again; it is a fact, that you may have several patients presenting different symptoms, and yet, when you come to examine their bodies, you find the same morbid changes in all. One may exhibit all the phenomena of typhus; in another, this condition is but slightly marked; in a third, it is absent; and yet, on dissection, you find a similarity of local lesion. Lastly, it may be urged, that if typhus were symptomatic of any particular local lesion, we should be able to cure it by removing that local lesion. This, however, is not always the case; that it sometimes does occur I am willing to admit, and this is therefore to be considered as the weakest of my arguments. But, on the other hand, if it be admitted that the local lesions are accidental and secondary, we can easily

understand why their removal should necessarily cause the removal of the fever. Such are the arguments on which I ground my objections to the doctrine — that all fevers are merely symptomatic of local disease; and in these views I think I am borne out by the opinions of the soundest modern pathologists.

But though we admit that local inflammations are secondary, and bear the same relation to typhus as the eruption of small-pox to the morbid state that precedes it, still they are not the less important; and it is by a careful study of them that we arrive at a key to correct and successful treatment. They are of great importance from being exceedingly common in fever, in fact, so common, that their occurrence is the rule, their absence the exception. They are also, in the majority of cases, the cause of death, and this they bring about in two different ways. First, directly, as in a case of simple inflammation. A patient in fever, who gets an attack of violent enteritis, may die of it as well as if he got an attack of primary enteritis; or he may die of pneumonia coming on during the course of his fever as well as the man who dies of pneumonia from cold. Thus we see that the secondary inflammations may produce death directly. They may also produce it indirectly, by preventing the efforts of nature towards a favorable termination. You recollect I told you, that in fevers there is a strong tendency to terminate spontaneously and on particular days. Now, we find that this disposition is greatly impeded by the presence of local inflammation, so that local inflammation may operate to the destruction of life in two ways, either directly, by its intensity and extent, or indirectly, by preventing a critical termination.

This leads us to look still deeper into the matter. We find that these local, or secondary, affections may also produce a train of sympathetic phenomena of a very remarkable character. There is no reason why enteritis, coming on during the course of a fever, may not re-act on the economy as well as the enteritis from cold, which we know generally produces symptomatic fever. In the case of two patients, one, for instance, meets with some lesion of the intestinal mucous membrane, and, as a consequence, gets enteritis and sympathetic fever; another gets enteritis during the course of a typhus; in the one case, the local lesion plainly re-acts on the system, in the other this is less apparent, but there is no reason to suppose that it does not produce some effect on the system in one

case as well as in the other. The law appears to be this, that, in almost all cases of fever, there is a combination of the essential and the sympathetic fevers, the essential the result of the first cause, and the sympathetic the result of the local lesions, which arise during its course. Indeed, nothing seems to be better established than that local disease re-acts on the system and prevents a critical termination. You will get a very good idea of this by considering the paroxysm of an intermittent. What are the periods in which an intermittent is most liable to terminate favorably? The earlier ones. What are the periods in which a favorable termination is least likely to happen? The later ones. Now what are the periods in which there is little or no accompanying organic lesion? The first or earlier. What are those in which there is more or less of organic change? The later, in which we generally find, on making a careful examination, that disease of some organ, or organs, has taken place, and is presenting an obstacle to a favorable termination. It is the same thing with respect to fever.

In the treatment of fever, it is a most important rule to investigate the condition of the viscera, and remove, if possible, any existing local inflammation. By this we accomplish a double purpose; we prevent the direct danger of death from the violence of local disease, and we obviate the inconveniences arising from sympathetic irritation. We give nature fair play, we reduce the case to a state of the greatest simplicity, we prevent the liability to new local affections, and we thus effect a great deal towards a favorable termination. It is an interesting and singular fact, and one dwelt on by the school of Broussais, that, in many cases of fever, the removal of the local inflammations is speedily followed by a subsidence of the fever. It is chiefly from this fact that they argue in favor of the opinion, that all fevers are symptomatic of local disease. This argument, however, as I have already proved, is more specious than solid. The true reason is, that by removing local disease we remove the barrier which opposes the salutary operations of nature. Every attempt at a favorable termination is impeded by the co-existence of local disease, and the more intense and extensive this is, the greater is the obstruction. You are not by any means to conclude, that a fever is symptomatic because it disappears on the removal of local disease; the true explanation is, that by subduing the local inflammation you have removed a focus of irritation, and given scope to the preservative powers of nature.

These, gentlemen, I believe most firmly to be the true principles which should guide us in considering the subject of fever. They have been obtained by careful and accurate deduction, and are based on a numerous series of well-conducted experiments. Weigh the matter calmly, and I think you will be disposed to agree with me, that fever in its origin implies no tangible condition of the system, and that we know it only as consisting of a group of phenomena, varying as to their cause, seat, effect, and duration. The humoralists erred by fixing its seat in the fluids, the solidists by limiting its locality to the solids. We recognise no distinction between the fluids and solids; so far as fever is concerned, they all form parts of the great whole, one cannot act without the other, but their mutual reaction is extensive and various. From these considerations we deduce the important rule, that there is no mode of treatment universally applicable, and the man who treats fever with wine and stimulants only, or he who contents himself with purgatives and diaphoretics, or he who limits his practice to leeches and the lancet, that man knows nothing of fever. Though his hair be grey and his authority high, he is but a child in knowledge, and his reputation an error. On a level with the child so far as a correct appreciation of the great truths of medicine is concerned, he is very different in other respects, his powers of doing mischief are greater, he is far more dangerous. Oh! that men would stoop to learn, or at least cease to destroy!

Cases communicated for the Medical Magazine

By James Wood, M. D.

Case. I. — *Imperforate Hymen.* In June 1831, the writer was called at three o'clock, A. M. to visit Miss ——, a delicate girl of nervous temperament, aged sixteen. She had been indisposed for some time, complaining of pain in the left breast and an occasional hacking cough. There never had been to her knowledge any appearance of the catamenia. Three days previous to the visit, she had frequent desire to pass water, attended with much difficulty in voiding it: this difficulty had increased until it amounted to a complete suppression, accompanied with paroxysms of excruciating pain.

When seen, the suppression had existed for thirtysix hours, within the last three of which, the pain had become much aggravated. Her cries for relief were so urgent that the introduction of the catheter was immediately proposed and assented to. On passing the finger between the labia its progress was arrested by a smooth round substance, very tense, about the size and shape of the large end of a hen's egg, protruding from, and completely occluding the entrance to the vagina. The moment the paroxysm of pain subsided, this body retreated, loosing its firmness and form, and assuming the appearance of a loose membrane. The urethra was dragged down and embedded in it, forming, as it were, a part of its substance. After some considerable difficulty, the catheter was passed, and two quarts of urine were drawn off with immediate relief. At the next visit the cause of the last night's obstruction, and the necessity of an operation for its permanent removal were explained to her. She was willing to submit to the operation, and on the day succeeding was, at her request, seen by Dr. Stevenson in consultation. A careful examination discovered just within the labia, a firm, highly vascular membrane, strongly united to the vagina, and evidently containing fluid, probably the functional secretion of the uterus. A sharp-pointed bistoury being passed through this membrane about an eighth of an inch from the urethra, the fore-finger of the left hand engaging the point of the instrument a little above the inferior junction of the labia, the intervening portion was divided throughout; the membrane was unusually thick, firm, and of a fibrous appearance. A discharge of menstrual fluid, perfectly inodorous, and resembling tar in color and consistence, followed the incision and continued until more than a pound was evacuated. A tent of oiled sponge was then introduced into the vagina and secured by the T bandage. At the end of three days this was removed, and a fresh one inserted, and the practice continued until the edges of the wound had lost all tendency to adhere, and an opening was formed large enough to admit the little finger. The edges of the membrane were elevated within the whole circle of the vagina, feeling not unlike a hymen perforated in the centre. The patient, perfectly relieved from the pain in the breast, cough and other distressing symptoms, has since been in the enjoyment of perfect health.

Case II. — *Inversion of the Uterus.* Mrs. R., a healthy, well formed woman, expecting to be confined in February, was taken in labor with her third child, December 17th, 1833.

She was seen at one o'clock, A. M., having been in travail about seven hours; the pains recurring at regular, though distant intervals. In consequence of the length of time intervening between the pains, and their apparent feebleness, an examination was deferred till five o'clock, when the head was found presenting, the os uteri well dilated, and the membranes unbroken — they were immediately ruptured, and an unusually large quantity of liquor amnii passed off. The head rapidly followed the discharge of the waters, and in two pains rested on the perineum; the third pain expelling the child so violently as to throw it some distance from the mother. The child's cry being extremely feeble, some time was allowed to pass before the cord (which encircled the neck) was divided. In the interim, the mother complaining of great pain and a feeling of faintness, the hand was applied to the abdomen, to ascertain the state of the uterus; it could not be found. This circumstance excited much surprise, and a vaginal examination was immediately instituted, which discovered the uterus partly without the vulva with the placenta closely adherent. It was firmly contracted, and resisted all efforts made to replace it. The patient having previously expressed much anxiety as to the final issue of her present accouchement, some reluctance was felt about acquainting her with the displacement, and the means necessary for restoring the organ to its natural position. It has been said that the placenta was generally attached. This circumstance suggested the adoption of a plan which the peculiarity and exigency of the case seemed to warrant. From the vigor of the woman's constitution, and the rigidity of the womb, it was evident that its reduction would be impossible without recourse to large and speedy depletion. It was conceived that this might be effected by separating a portion of the placenta, without exciting alarm either in the patient or by-standers. One half of the placenta was then cautiously separated from the womb; every thing went on as well as was anticipated; the flow of blood was more copious than it could have been from venesection, the uterine fibre began to relax, and the pulse grew weak. After sufficient relaxation had been produced, the loosened portion of the placenta being replaced and supported by the fingers of the right hand, and the left hand applied above the symphysis pubis to assist the passage of the uterus upwards, the inverted fundus was gently but firmly carried up through the os tincæ. This was not effected without considerable exertion and great resistance from the rigid

os uteri. After two thirds of the body of the womb, with nearly the whole of the placenta, had passed through the resisting medium, its own resilience suddenly restored it to the natural position. The placenta was then completely separated by the hand from its connexions, and the whole removed. During the operation the patient became extremely faint; as soon as it was completed she had a camphor julap which removed the faintness and composed her to sleep. She had no further difficulty, and her 'getting up' was as favorable as with any of her former children.

The preceding case is unique in the experience and reading of the reporter. The cause, too, of the accident is obscure; no error of omission or commission occurred which could have given rise to it; it may have been owing to the brevity of the umbilical cord, which did not exceed fifteen inches in length, and was entangled about the neck of the child; or more probably, perhaps, to the suddenness with which the contents of the womb were evacuated, assisted by the shortening of the funis.

A circumstance occurred during the process for diminishing the tonicity of the uterus, which corroborates the opinion advanced by some obstetric writers, 'that strong pressure over that organ will arrest the most frightful hemorrhage.' Some time after the placenta had been separated, the flooding was inconsiderable, but as soon as the contractile power began to yield, the blood flowed with great rapidity and profusion; the uterus became flaccid, and for a moment, life seemed leaping from the patient in a torrent of blood, yet by grasping the womb at the point from which the hemorrhage proceeded, or at some distance above, perfect control was had over it. Midwifery authors, in their treatment of hemorrhage, seem to have paid too little regard to this simple and powerful agent; and by a few it has been most blameably overlooked. Before the writer had met with the distinct evidence afforded by the above case, his experience had taught him, that pressure upon the uterus, either by grasping it through the abdominal parietes, or by forcing it back against the spinal column, is the very best and most efficient means we possess of checking even the most alarming flooding. Pressure thus employed, acts in two ways; mechanically, and as a stimulus exciting tonic contraction, without which our best efforts are of no avail.

In connection with this subject the writer would remark, that the rule laid down by most authors, as to the length of time we should wait before proceeding to the removal of the placenta, has seemed to him of very questionable utility. He has in his own practice, witnessed but three cases of serious uterine hemorrhage (or one in a hundred): in two of which, delay in the removal of the secundines was the primary cause of the mischief. If the proportion seem small, it may be attributed to the practice he usually follows of delivering the placenta as speedily as may be after the birth of the child. If, on applying the hand to the abdomen, the womb be found globular and firmly contracted, the placenta is detached, and should be immediately withdrawn: if there be no uterine contraction, it may be excited by gentle external stimulation with the ends of the fingers. In no case has this practice given cause for regret; an assertion which it is suspected cannot with truth be made by those who are in the habit of waiting for the 'unassisted delivery of the placenta.' An able paper on this subject by Dr. Samuel Jackson, of Northumberland, may be found in the second volume of the American Journal of Medical Sciences.

Intussusception.

Intussusception with Stercoraceous Vomiting, successfully treated by Inflation, by J. Wood, M. D.

With the permission of the author, we have condensed from the Boston Medical and Surgical Journal, in which it originally appeared, the following valuable case.

Mr. G. aged 35, type-founder, of nervous temperament, was suddenly seized on the night of September 17th, with violent pains in the umbilical region: has before suffered two slight attacks of rachialgia. A medical gentleman in the neighborhood saw him, and prescribed purgatives and hot fomentations. My attendance was requested the next night. He had obtained no relief from the remedies administered during the day; stomach had rejected them. No dejection for three days; frequent retching; little intermission from pain; pulse small

and regular. Superficial examination of the abdomen detected no peculiarity. An acquaintance with his previous attacks led to the presumption that the present was painter's colic: he was, therefore, directed to take a pill containing two grains of opium, and one drop of Croton oil every two hours till relieved; to have an enema every four hours, and bags of hot sand to the abdomen.

Sept. 19th. Has taken all the pills: less pain through night, but since day-break paroxysms have returned with greater force and frequency, accompanied by violent tormina and tenesmus; dry retching, especially after taking drink; hiccup; slight but general tenderness of abdomen: pulse irregular, irritated; no fæcal evacuation, but discharged in the course of the day a little bloody mucus, and vomited, towards night, a large quantity of green bile mixed with feculent matter. After a careful examination, the precise point of obstruction was ascertained. At first, only an unusual fulness and firmness in right iliac region could be discovered: but the hand lying upon the spot, a paroxysm of pain occurred and an elongated tumor was felt to rise with an erectile motion: immediately there followed a gurgling, rumbling noise, and a rush of fluid downwards against the point of obstruction. After two or three surges against the tumor, the fluid receded towards the stomach; but again returned with renewed violence, until the spasm subsiding, it passed upwards, the bowels taking on an inverted action. The treatment adopted was copious bleeding, the administration of purgatives, as calomel, infusion of senna, castor oil; enemata of tobacco infusion; hot anodyne fomentations, and at night large doses of opium.

Sept. 20th. Aggravation of all the symptoms. In the afternoon Dr. Morrill saw him, and after a careful examination of the case and an acquaintance with the treatment pursued, he agreed in opinion that there were no grounds for hope. As a last resource, however, he proposed inflation of the bowels with atmospheric air.* Placing the patient on his right side, the pipe of a pair of bellows was introduced into the rectum, and inflation cautiously begun. This succeeded but partially, owing to the imperfection of the instrument: yet to our surprise, he proclaimed himself much easier, and was irresistibly driven to the commode, where he passed a large quantity of air and a gill of very fœtid, bloody water. A more

* Vide Med. Mag. Vol. II, Page 530.

perfect pair of bellows having been obtained, the tube was again inserted, and inflation employed till the abdomen became tense. He had no recurrence of violent pain after first inflation. Directions were given him to remain quiet in bed, and resist the disposition to evacuate the bowels; to take one drop of croton oil every two hours, and at the end of four hours an enema of mucilaginous fluid. He was visited six hours afterwards; had had no return of pain since inflation: within last hour two copious dejections.

Sept. 21st. Had seven dejections since last visit; quiet sleep for three hours; somewhat feverish, thirsty; countenance anxious; pulse 125, small; tongue red, dry in centre. Full vesication from blister applied yesterday. Pretty severe enteritis followed, which yielded to the usual remedies in the course of fourteen days.

The result of this case was extremely gratifying. With regard to the treatment finally employed, we had no very sanguine anticipations of success; yet it must be admitted, that there is more philosophy in it than in many other plans adopted to lessen the ills of life. Of the numerous enemata administered in the fortyeight hours preceding the inflation, but a small quantity was retained; and that but momentarily. The use of them was persisted in with the hope of effecting mechanically the dilatation of the gut. In similar cases, the enemata cannot be thrown up to any amount: what is injected immediately returns. The effect is totally different when air is used. Its levity, its freedom from all irritating qualities, its elasticity and expansibility, give it a decided preference over enemata. The nature of the difficulty, also warrants the view of its utility. The tendency of the peristaltic motion and of the ingesta, is from above, downwards: most cases of intussusception, therefore, are *progressive*, few *retrograde*. If then, we can dilate the stricture, the invaginated portion will escape from below upward, and thus be restored to its original situation. If the above explanation be correct, what remedy can compete with inflation? It certainly merits a trial, and is earnestly recommended to the consideration of the profession.

In relation to the disease of which the above is a very interesting and instructive case, there are two questions worthy of consideration. 1st. Is it recognisable during life? 2d. All other means failing, can we hope any thing from an operation? In reply to the first question, we have no less an authority

than John Hunter. 'An intussusception,' he remarks, 'can never be *perfectly* known until after death; but where there are violent affections of the bowels, attended with constipation, we have reason, from the cases which we have experienced in the dead body, to suppose that this disease may be the cause of them. There are, however, so many other diseases which produce the same symptoms,that nothing can be ascertained.'* This seems somewhat too positive. For the disease is surely recognisable when the invaginated portion is seen at the anus, as has occurred in cases on record; or, if after the usual symptoms of invagination, a portion of intestine be thrown off, we are authorised to believe that disease existed, though the patient survived, and of course no examination can be made. Mr. Langstaff, another writer on this subject, doubts the assertion of Mr. Hunter. 'In many of the cases published,' he observes, 'the seat of the disease was clearly denoted by a hard tumor in the left side of the abdomen. This circumstance, together with the impossibility of throwing up more than a very small quantity of fluid by way of glyster, and the presence of other symptoms, would lead us to suspect the nature of the disorder.'†

In many cases the progress of the disease is slow, consequently the symptoms must vary with the *degree* of intussusception. Generally, the early symptoms are interruption or embarrassment in the passage of fæces; whence result nausea, hiccup, vomiting, frequent inclination to stool, colicky pains: symptoms which also belong to other diseases. Even when the access of the disease is sudden, we can only conclude that obstruction may exist, without knowing what that obstruction is; for instance, the entanglement of a portion of intestine in a band or bridle of false membrane, may give rise to the same symptoms? Upon the whole, there seems to be but one diagnostic sign on which reliance can be placed, and that chiefly, when the intussusception is in the large intestine. If in conjunction with the ordinary indications of intussusception, a tumor be discovered in the left iliac region, with flatness or depression in the right, we may, with a good deal of certainty, maintain the existence of this disease in some portion of the colon. The diagnosis will be most liable to be confused by the collection of fæces in the sigmoid flexure of the colon; but the

* Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge, Vol. I, Page 112.

† Edinburgh Med. and Surg. Journal, Vol. III, Page 365.

difference which must exist in the severity of the symptom, which will hardly be parallel in the two cases, will remove the difficulty. There are examples of a portion of the ileum becoming invaginated within the cœcum, and remaining, without the latter intestine being moved out of place. The tumor will in this instance, be in the right iliac region instead of the left. The impossibility of throwing up injections will also assist in forming an opinion.

The second question is important. After a fair trial of the most rational mode of treatment, does gastrotomy promise sufficient to induce its employment? Hunter and Langstaff answer in the negative. Doubtless, in many cases the adhesive inflammation which takes place will render the operation abortive; but in this case, unless relieved by nature, the disease will inevitably prove fatal, and the additional danger of an operation can be of little moment. A case is recorded in Hufeland's Journal for February, 1825, in which the operation was performed on the tenth day of the disease, and the invaginated portion of intestine, amounting to two feet in length, replaced; *an opening into the gut having been previously made.* If authentic, this case offers encouragement. In the second volume of this Journal, a case is reported in which gastrotomy was done upon a child six months old, on the fourth day, but without success. The event must in all cases depend much upon the state of the intestines: if the disease has existed for a considerable time, and the invaginated portion has become adherent, or if it has lost its vitality, or if general peritoneal inflammation have commenced, gastrotomy will probably be of no avail. As in external strangulation, so also in internal, success depends greatly on the promptness of the surgeon after all reasonable time has been allowed for reduction. Nature relieves but few cases; so few, that the disease may be considered almost uniformly fatal. If, therefore, the diagnosis be well established, ordinary modes of treatment availing nothing, there seem to be good grounds for the operation.

The following cases illustrate two very important points in this disease, and in internal strangulations generally. 1st, The necessity of certainty in diagnosis before gastrotomy is performed. 2d, The power of nature in relieving intussusception by other means than the excretion of the invaginated portion of intestine.

The first case was related by M. Sanson at the Society of Medicine at Paris, and may be found in Johnson's Medico-

Chirurgical Review for September, 1830. 'A man after a journey, was seized with symptoms of internal strangulation. He had constant vomiting, obstinate constipation, inflation, tension, and pain of the abdomen. Stercoraceous matters were at length ejected. This man had had reducible hernia of long standing, which he had recently put up, and he affirmed that there was nothing unusual in the appearance of the hernia at that time, the truss being applied in the usual manner. Warm baths, venesection, and the usual means, produced no relief. A consultation was ordered, and the question of an operation was agitated. The majority decided against the knife. The patient, meantime, continued in the same state till the sixteenth day from the commencement of the obstruction. A celebrated surgeon was now called in, and after mature consideration, proposed to operate, although no tumor or other circumstance indicated the site of the strangulated gut The operation was agreed to, and M. Sanson went home to bring the necessary instruments and dressings. When he returned, he carefully examined the abdomen, and found that there was actually less tenderness and tension in the neighborhood of the rupture, than in any other part of the belly. Continuing the examination, he at length discovered an oblong tumor deeply seated in the left side of the abdomen, (the hernia was on the right) which appeared to him to be a collection of hardened fæces in the colon. A bougie was introduced into the rectum, but could not be passed up to any extent, on account of the contracted state of the gut. Oily lavements were then employed, at first without effect, but by perseverance they brought away some soft fæces. A purgative could not be administered by the mouth, on account of the constant vomiting. The surface of a portion of the thigh was denuded by a blister, and thereon was applied some croton oil. The consequence was, an abundant evacuation from the bowels, and instant relief of all the symptoms. The operator would have looked rather foolish, had he employed the knife in this case, and been permitted to examine the body after death !'

The second is a very remarkable case.* 'The patient, a boy ten or eleven years of age, had been afflicted for some years with excruciating pain in the region of the transverse arch and descending colon, where, at length, a very tender

* Johnson's Med. Chir. Rev., Jan, 1827.

and painful tumor was felt, and continued for more than two years. All this time the boy was in the habit of passing, under excruciating torments, some liquid excrement mixed with mucus, blood and serous fluids of different colors ; but seldom natural fæces. At length matters got to such a height, that the boy was expected to die, and Sir Astley Cooper frequently saw the patient. On examination by the rectum, Sir Astley distinctly felt the invaginated portion of bowel which had come down within reach of the finger. It was shortly after this period, that Dr. Johnson had opportunities of seeing the boy. There was a hard tumor, exceedingly tense, tender and painful in the left side of the abdomen, apparently occupying the track of the descending arch and sigmoid flexure of the colon. The urgent desires to stool still continued, and the matters rendered were of a liquid and unnatural appearance, devoid of real fæcal smell. The boy was tolerably easy, till the nisus for stool came on, when he roared out with pain, and at these times, his mother pressed hard against the anus, which seemed to relieve him. He was obliged to take opiates in considerable quantities, which, with aperients, were the only medicines which seemed to be of use. Externally, leeches were applied from time to time, to keep down the inflammation. The most curious part of the history remains to be told. After so many years of suffering — after the existence of a tumor in an irritable and inflamed state for such a length of time — after an intussusception had been ascertained by the finger of the first surgeon in England — after the boy's life had been long despaired of by friends and medical attendants, he suddenly took a turn for the better ; the pains became less and less distressing, the tumor rapidly diminished with a great dis charge of fluid, the stools became more natural, and the boy at this day, has not a vestige of the disease left ! It is worthy of remark, that when the complaint began to get better, he felt something dragging up or retracting from the tumor, which is now supposed to have been the invaginated portion returning back again. If the above was a case of intussusception, it offers a remarkable instance of cure by the effort of nature, after so many years' duration of a formidable disease.' J. R.

COLLECTANEA.

Discoveries in the Nervous System. — Sir C. Bell read a lecture to the British Scientific Association on the nervous system, the most important part of which was his announcement of two discoveries by his assistant, Mr. Newport, of the spinal marrow of the lobster, and a medullary tract of spinal marrow in the *sphinx ligustri*, from which nerves were distinctly traced extending to the respiratory organs of that animal. These new facts analogically confirm what has been usually regarded as the most dubious part of Sir C. Bell's views of the nervous system. The only other novelty in his lectures was a recommendation of some improvements in the mode of examining the brain; he strongly advised anatomists to use brains that had been preserved for several months in spirits, declaring that in them the course of the fibres could be traced more distinctly than in others.

Sympathy between Twins. — Mrs. S——, who had previously borne three children, brought forth twins, two brothers. During the period of pregnancy she enjoyed perfect health. Adolphus and Theophilus, the named twins, were entrusted to two women living under the same roof to wet nurse, a few days after their birth. During the period of lactation, they were not attacked by any particular disease, though now and then, like most children, they were slightly indisposed. But what was remarkable, however slight the indisposition might have been, when one became poorly, the other was also indisposed, the symptoms in both being precisely the same. Derangement of the alimentary canal from dentition, intestinal worms, &c., always made their appearance in both precisely at the same moment, and the symptoms in both were of equal intensity. After remaining fifteen months in the country, their parents received them home. Since this epoch they have been attended by Dr. Nourel, who, after carefully watching them, verified the remarks already made by the nurses. Up to the present time, 1831, the following are the different diseases he has observed in both of them. Quotidian intermittent fever commenced and finished in each on the same day; acute conjunctivitis, colic, which in both lasted twentyfour hours. Two molar teeth in each made their appearance at the same time.

In 1832, they had different eruptions exactly of the same nature; during last winter, both, for the same length of time, suffered from bronchitis. In 1833, they were attacked with measles,

after which with scarlet fever; in both these diseases the symptoms were precisely similar; their commencement and termination in both were exactly at the same periods. In 1834, intermittent fever, ear ache, of which both cruelly suffered. Finally, a short time since, Theophilus felt an intense itching on the posterior part of his neck, an eruption appeared on this part, in the form of small vesicles. The next morning Adolphus was affected with precisely the same rash; it was at this time that M. Cagentre saw the children, and observed on each precisely the same phenomena. Theophilus since his birth has been of feeble frame, meagre, but of lively disposition; Adolphus is more robust, and extremely indolent. Both are of the same height, occasionally play together, and frequently quarrel. Their dispositions are entirely opposite. — *Lond. Journal.*

Hydrophobia Communicated by a Cow. — It has been asserted by some who hold a high rank both in the verterinary and medical world, that rabies can be communicated by those animals only who use their teeth as weapons of offence. We have often wondered at the unhesitating and dogmatical way in which this assertion is made, for we are ignorant of any theoretic principles on which it could be possibly grounded; it is contrary to occasional facts, well known to all who have paid attention to the subject; and it is likely to lead to dangerous and fatal neglect of proper precautionary means. A late number of the *Journal Théorique* has added another to the cases of death succeeding to inoculation with saliva from a rabid ruminant, and also of the fearful period during which the virus may remain inert in the frame. A cow in the department of Jura was bitten by a dog affected with rabies. Some time afterwards she became dull, and refused all kinds of food. She approached some water which was offered to her, and made repeated but fruitless efforts to swallow it. A woman that had the care of her imagined that some foreign body was lodged in the pharynx, and prevented the animal from swallowing; and she thrust her hand into the mouth of the beast, and to the very back part of it, but found nothing. In doing this her hand was slightly scratched by one of the teeth of the animal. It was soon afterwards sufficiently plain that the cow was rabid, and she was destroyed by order from the magistrates. A year afterwards the woman began to have frightful dreams, in which she thought that she was pursued by two enraged animals,—the cow, and the dog by which it had been bitten. She had dread of water, and she died of rabies in a state of horrible suffering, attended by circumstances peculiarly lamentable. — *Veterinarian, Oct.* — *Lancet.*

Non-Mercurial Treatment of the Venereal Disease. — The London Medical Gazette contains the observations of Thomas Clarke, Esq. on the Venereal Disease at the Cape of Good Hope, for the last year, being additional to previous observations for a period of four years. A few extracts will show the conclusions at which he has arrived and in which he is confirmed.

Having, during the whole of the former period, had the opportunity and advantage of an uninterrupted observation of the disease, occurring in a body of men constantly under my own eye, and conscious of being free from bias, I was enabled, as I believe, to give a fair and impartial trial to the mercurial and non-mercurial modes of treatment. The result was, as I formerly stated, a confirmation of the fact — a fact which had long before been established by others, that every variety of the primary disease may be cured without the use of mercury; and that this mode of treatment was to be preferred, as accomplishing a cure at a less expense of health, (though not, perhaps, of time, in the first instance;—) as incurring a smaller risk of constitutional symptoms; — and as holding out an assurance, that these symptoms, when they do occur, shall be mild and tractable, and easily and effectually removed, with little injury to the constitution.

Were the merits of the question, as to the employment of mercury, to rest upon its necessity alone, I conceive they would lie within very narrow limits; but a far wider range is embraced, and important results implicated. It becomes then a subject worthy of deliberate consideration, not to be rashly taken up, nor lightly abandoned. In this spirit, and with an earnest desire to do justice to truth, as well as to those entrusted to my care, I continue to prosecute the subject.

The cases of ulcers which have been admitted into the hospital during the last year, amounted to twentyseven. Although not so numerous as in former years, they have not failed to exhibit the same diversity of character. It would be waste of time to describe the various appearances; suffice it to say, that between the small superficial secreting sore, and the suppurating ulcer with hardened edge and base, there have been examples of every variety which has been observed on former occasions. They have all been cured without the internal application of one grain of mercury. The period under treatment of the simple ulcer has varied from six to fifty days. The average of the whole number rather less than twenty and a half. Of the cases of bubo, which in every instance proceeded to suppuration, the period under treatment averaged thirtythree days.

Every man was discharged fit for duty. Upwards of twelve months have elapsed in some instances, and not less than four in any, and no symptom of constitutional disease has appeared.

There is a little more difficulty, and but a little, in respect of the variety of the disease called gonorrhœa. If we find a train of constitutional symptoms following a simple running, analogous to what is so often observed to follow an ulcer on the prepuce, are we not compelled to believe that they are produced by a poison absorbed in the one case, as well as in the other? But we shall be told that the constitutional disease in the former, though simulating the character, is not the same as in the latter; and that it is always milder, and never extending to the second order of parts. Admitting this to be the case, which, perhaps, it is not always, the identity of the poison is not thereby disproved. That gonorrhœa is so seldom followed by constitutional disease, proves nothing. If it is essential to absorption that there should be a breach of continuity, the rarity of constitutional symptoms from gonorrhœa may, in some degree, be accounted for, — an ulcer in the urethra not being, as far as I am aware, a frequent occurrence. But if any reliance can be placed on the veracity of those I have had under my care, or on my own accuracy of observation, I find a difficulty, with the utmost deference to an eminent authority, for admitting the fact.

There were two cases of iritic inflammation accompanied with pains in the larger joints, and copper colored blotches on the skin.

They had both been the subjects of primary and constitutional disease about twelve months previously, and exposure to cold and wet weather, was the exciting cause in this instance, bringing forward the disease in a new form. In these cases the efficacy of mercury is undoubted and indispensable. The mild tonic action of the Plummer's pill, in conjunction with sarsaparilla, is preferred to all others. The disease yielded gradually, and is to all appearance completely removed.

After what I have stated, I come to the following conclusions: —

1st. That the poison which produces all the varied appearances of venereal sores and gonorrhœa, is one and the same.

2nd. That the matter of gonorrhœa is the parent stock from whence the numerous family of venereal diseases has sprung.

3rd. That the diversity of character of these diseases is determined by many and various circumstances; such as climate, races of men, temperament of body, habits of life, and other influences, some known, and others unknown.

4th. That mercury is not indispensably necessary to the cure of this disease; but as it may be beneficial in some and prejudicial in others, its employment must be left to the judgment and discretion of the practitioner. — *Med. Gazette.*

Portuguese Pathological Anatomy and Legal Medicine — Post-mortem examination of Don Pedro. —

'*Abdominal Cavity.*— No fluid. Omentum and peritoneum *rather too pale*, appearing to be *thickened by effusion of bile.*

'Gastric mucous [membrane?] the color changed in the posterior part towards the spleen.

'Hypertrophy of the great lobe of the liver, and the same altered in color, being too dark.

'Spleen become very soft, approaching to a state of solution.

'*Thoracic Cavity.*— Hydro-thorax of the right pleuritic sac, containing 2½lb. of turbid and sanguineous fluid.

'No fluid in the left pleura, but a very extensive adhesion of the pulmonary pleura to the costal, and alteration of color, it being *much too dark.*

'Left *lung* adhering very extensively to the *costal* pleura, of a livid color, and friable; no crepitation on being cut, and almost without any vesicular appearance throughout the whole; merely a small portion of the superior part was permeable to the air, and that portion swam, though the whole sank.

'Heart a little larger than the regular size, flaccid and discolored, with some adhesion to *the posterior part.* The valves being examined, were found in the natural state. Further examination prevented by the necessity of preserving the heart entire.

'Kidneys altered, inclining to white, as also in the cortical substance, which was in a soft state. A calculus was found in the left kidney. In the bladder no alteration.'

We have marked a few phrases and epithets, on which we have an observation or two to make. Of the production generally, we must repeat, that nothing of the kind can well be more meagre. We are not informed how many hours elapsed before the examination was made. The date of the document, it is true, is the 25th of September, the day after the royal patient's death; but, for aught we can learn, the autopsy might have taken place any time between twelve and thirty hours after. Nor is there a word said touching the external appearances of the body: no note is taken of the outward marks of the illness which produced death. It is not even mentioned whether there was anasarca of the extremities, or of the trunk — no unusual circumstance when the chest is in the condition here described.

The head, it would seem, was not examined: doubtless the physicians thought it unnecessary, as the intellectual faculties of the Ex-Emperor were unimpaired to the last. But, in an examination of this kind, made by authority, we think the omission rather inexcusable; it could have given very little additional trouble, and would have been more satisfactory to all parties.

In what we are told relative to the cavities examined, there are some things particularly deserving of notice. The omentum

and peritoneum, it seems, were *rather too pale;* and no attempt is made to assign any probable cause of the phenomenon. Presuming that the words are correctly rendered, we only gather from this that the serous membranes of the abdomen were unnaturally pallid; but how can this accord with what follows — that those very membranes appeared to be 'thickened by effusion of bile?' If *bile* had made its way into any portion of their texture, it is difficult to conceive how they should have been, at the same time, 'rather too pale.'

Concerning the stomach, we only learn one fact — that there was some discoloration of the mucous membrane in that part adjoining the spleen; the latter viscus, as we are further informed, being almost in a state of decomposition.

The account of the lungs is despatched with almost equal brevity; though here being the seat of the disease, a little more detail might have been expected. The abdominal cavity might, perhaps, be disposed of in a few words; but the chest, as containing the cause of death, one would think deserved a little closer inspection. We are not vouchsafed a single word respecting the right lung, any more than if such an organ never existed. Where such a marked distinction was observable in the pleuritic cavities — one containing $2\frac{1}{2}$ lbs. of fluid, and the other none, it would have been at least satisfactory to learn in what state was the lung which was bathed in so much serous effusion; especially as such morbid appearances were noticed in the left lung, which seemed to be all disorganized, with the exception of a small part in its upper lobe.

Neither are the tidings of the heart more satisfactory: in the present day, when the morbid anatomy of that organ is so well understood, (is it not so in Portugal?) what can we infer from being merely told that the heart was somewhat enlarged? — neither knowing whether there was hypertrophy or dilatation, if, indeed, there was any organic lesion about the parts. What is said of the adhesion of the heart is scarcely intelligible; perhaps the *pericardium* is understood, though not expressed: we should moreover expect to be told whether there was any effusion in the latter sac or not.

Altogether we must say that this *postmortem* report, though signed by Don Joao Fernandes Tavares, first physician of the Royal Chamber, and by sundry surgeons, and other medical men of the Portuguese Court, with high sounding titles, is not a very favorable exhibition of the state of pathological science in Portugal.

But if it be faulty as a mere report of morbid appearances, how must we qualify it when viewed in the light of a medico-legal document, concerning a royal personage? — for such it must be considered. The Duke of Braganza, it was rumored,

had fallen a victim to slow poison. No matter how vague or how absurd the rumor might be — and, indeed, it seldom happens that an exalted personage goes down into the tomb without giving rise to some suspicion of foul play — according to the poet's shrewd remark,

> Ad generum Cereris sine cæde et vulnere pauci
> Descendunt reges, et sicca morte tyranni;

however vague, we say, the suspicions might be in the present case, it surely behoved the medical attendants to give so minute and clear an account of what they were commissioned to observe, as to leave no room for any surmise. — *Med. Gazette.*

Cure of Polypi with Sulphate of Zinc, by Thomas Chevalier. — Sir, — I observed in your number of Saturday last, a letter from my friend and colleague, Mr. A. C. Hutchison, on the successful employment of a strong solution of sulphate of zinc in the treatment of nasal polypi; and beg leave to add, that since he kindly informed me of Mr. J. Dallaway's using it, I have had at least six cases in which it has been the means of cure. In the first three or four cases it was the sole treatment. I believe one of them, in a youth of 14, to have been an example of the severer form of the complaint, the polypi completely filling the anterior nares, and apparently extending to the antrum, and toward the forehead. At first I directed a solution (℥ j. ad f. ℥ j.) to be injected upon the polypi, until it occasionally entered the throat. As soon as he could in any degree sniff the liquid, I prescribed, as in all my cases, that he should do so, lowering the solution to ℥ ss. ad f. ℥ j. and cautioning him, that if he swallowed much of it he would be very sick. To the best of my recollection the boy got well in about three months. In those examples which have more recently presented themselves to my treatment, I have not scrupled to use the polypus forceps in the first instance, where they might readily be applied with advantage to any portion of the diseased structure. This I have done merely to save time, and not from any diminished confidence in the efficacy of Mr. Dallaway's remedy. I have never found any evil result from its being sniffed up the nose.

The polypi which are commonly found in the nares are spheroidal hollow bags attached to the Schneiderian membrane, or to each other, by comparatively narrow necks. I have certainly seen them contract and relax again, more then once (I think I may safely say three times,) after their removal to a basin of water. But I am jealous in attributing to them, on that ground an independent life. We have much fuller evidence that *hydatids* are distinct animals, and yet the mind hesitates to allow it.

I never saw a polypus in the meatus auditorius externus anal-

ogous to those of the nose. The former, from all my experience, are not hollow. Although they are spheroidal, and *shrink* when torn from their attachments, they do not exhibit the slightest appearance of active movement. They generally spring from a very small orifice in the cutis, or it may be in the cartilage of the tube, and consist of a very loose spongy texture, full of blood and serum, and invested with the same delicate covering which all granulating sores exhibit. I believe them to be nothing else but '*proud flesh.*' The granulation is, indeed, unusually exuberant, so as to form a very narrow-necked fungus; but we have all seen fungi on other parts precisely analogous, and which may be described as the same thing with a polypus of the meatus, excepting only in their magnitude and situation. A minute portion being extirpated from the middle of the toe-nail in scraping or paring it, leaves a wound surrounded with pressure, which, if neglected, will shoot up exactly such a fungus as in the ear would be called a polypus. However, the strong solution of sulphate of zinc is equally beneficial for what is called polypus in the ear, as for that in the nose. I have tried it in abundance of instances, and have generally found ℈j. ad f. ℥j. sufficient.— *Lond. Med. Gazette.*

Question of Law. — A question of law at present excites the attention of the Medical world in Paris. A physician, celebrated for his skill in lithotrity, has recently cured the Count de la B——, formerly a minister of Charles X. M. de la B——, after writing in vain to M. A——, to fix the amount of the demand, sent him three thousand francs. M. A——, in reply, stated that it was too small a remuneration for his services, and demanded ten *(dix)* thousand francs in full. M. de la B—— read, or pretended to read, the 'ten' 'six,' *(six,)* and sent the Doctor three thousand francs in addition, to make up that sum. M. A——then renewed his demand of the ten thousand in the most positive and plain manner, and the Count in reply refused to give more than he had already done; the physician then commenced proceedings, and the matter is to be decided before a competent tribunal immediately. In a similar base, M. Dupuytren was paid by a rich banker in a way which he deemed insufficient, — only six thousand francs, — and he replied in the following terms: — 'I thank Mr. H—— for the six thousand francs which he has this morning sent me, and I only regret that he did not avail himself of the opportunity to pay me in full.' — *Lond. Journal.*

Medical Responsibility. — More than 700 medical men of Paris assembled on Saturday to take into consideration a question of

medical responsibility. Dr. Nauroy, of the department of the Eure, performed the operation of bleeding upon one of his patients; some bad consequences followed, for which he was not consulted. An officer of health amputated the arm, in which a gangrene had commenced in the part lanced. An action was brought by the patient against Dr. Nauroy, and the tribunal of Evreux, deciding a question to which it was totally incompetent, condemned M. Nauroy in damages to a considerable amount. There is no medical man who does not know that the operation of bleeding, however skilfully performed, may be attended with serious results; and certainly the judges were totally incapable of discussing the elements of the problem submitted to them. The Doctors of Physic agreed to furnish Dr. Nauroy with the means of supporting an appeal against this decision, and a subscription has been opened for that purpose. — *Lond. Med. and Surg. Journal.*

Case in which the Kidney presented a double Ureter. — M. Lauth lately presented to the Academie Royale de Medécine, a memoir, containing the description of a kidney having a double ureter. The anomalous ureter, larger than the other, proceeded from the upper part of the kidney, and communicated with the urethra in front of the neck of the bladder. — *Archives Generales.— N. A. Archives.*

Preservation of Leeches. — M. de Cavaillon reports, that he has succeeded in preserving, for upwards of a year, a dozen leeches in the same water, (about three pints,) having about three ounces of animal charcoal mixed with it. These leeches were repeatedly employed, and after being engorged each time, by putting them in a weak solution of common salt, they were replaced in the same water. He has succeeded by the same process, in preserving fish for a length of time, without changing the water. — *Ann. de Méd. Phys.* — *N. A. Archives.*

TO READERS AND CORRESPONDENTS.

We need offer no apology for inserting the entire lecture of Dr. Stokes on Fever, to the exclusion of other matter. It contains the essence of modern researches on this subject, and should be read by every physician. Several communications are on file, and will appear in their turn.

The Catalogue of Students attending Medical Lectures in Boston, just issued, bears 103 names of students.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

Anatomical Lesions in Typhus Fever.

We follow up the admirable lecture of Dr. Stokes on the natural history, symptoms, and treatment of fever, which appeared in our last number, with M. Chomel's exact and learned clinique on the morbid anatomy of the disease, reported in the London Medical Gazette.

This gentlemen is a professor in the School of Medicine, and one of the physicians of the Hôtel Dieu in Paris. He is a follower of Louis, who is at the head of the prevalent medical sect of our times — a numerical, of course; but not an exquisite one.

Louis, and some of his disciples, are as extravagantly exact, as some of their predecessors have been loose and general in their observations and descriptions; but our author generally keeps himself within the limits of appreciable portions and appearances, avoiding the subtile specialities, which are so ridiculous in some of his medical brethren.

The two lectures constitute an excellent, comprehensive epitome of the modern orthodox doctrine and practice in fever.

The morbid changes of structure met with in those who die of typhus fever are no less varied than the symptoms which we have described in a former lecture. Some of these changes are constant, or nearly so, while others occur in a certain number of cases only; hence the distinction into lesions which are essential, and lesions which are accidental — a very important division, and one which we shall therefore adopt.

Lesions which are Constant. — The lesions which are constantly, or nearly always, met with in typhoid fever, occupy the follicles of the intestines and the ganglia of the mesentery. The alteration of the follicles, whether the glands of Brunner or Peyer, is far from being always the same. If the form of fever changes during the progress of the malady, corresponding changes take place in the anatomical lesions, dependent upon the epochs at which such variation in the type may have occurred. I shall describe these changes, following them through the different phases of the disease.

Tumefaction of the intestinal follicles and mesenteric ganglia. — It would be difficult to say at what epoch of the fever this alteration commences, because I have not had occasion to open the bodies of typhus patients who have died before the seventh day; and the most recent works contain no information on this point. Of fiftyfive cases examined by M. Louis, the most recent had not proved fatal till the eighth day. M. Brettonneau appears to have examined the body of one patient who died on the fifth day. The case has not been published, but if we may judge from the report of one of his pupils, it would not appear that the lesion found at this time differed from those which presented themselves to me at a later period — viz. the seventh day. At this time the intestines are usually found distended with gas, which augments their transparency, and in many cases enables us to distinguish spots externally, of greater or less size, and more or less opaque. In examining the bowel externally, we discover salient patches, corresponding to these opaque spots, which are raised one, two, or three lines, and have projecting borders. The color of these patches varies with that of the surrounding tissue, but is always darker. Their size and form are not less various: the larger are elliptical — the smaller are more round, but appear like the former, to have their seat in Peyer's glands. Besides these, still smaller ones are sometimes met with, occasionally resembling a large pustule; these are Brunner's glands. Such patches are found in the ileum, and sometimes at the

end of the jejunum; but in the greater number of cases, they occupy the end of the small intestine. The largest spots are always opposite the insertion of the mesentery, and are placed at variable distances from each other. Sometimes we also meet with this lesion in the large intestines, which only exhibit spots of small dimension; for in the natural condition, aggregated follicles are never met with. The mucus membrane which covers these, appeared, in the only case which I had an opportunity of observing, at the seventh day, and in the few wherein death took place near this period, not to have suffered any appreciable change. When an incision is carried through the thickness of one of these spots, and the edges of the section are examined, the mucus membrane is first distinguished, and then beneath it a layer, the thickness of which varies from one to two, or even three lines, formed of a white or slightly yellow, firm, smooth, and brilliant substance. This structure has some analogy with that of tubercle not yet softened, but differs in respect to its brilliancy, which contrasts strongly with the dull aspect of tubercle. Beneath this layer, which occupies the whole extent of the patch, is usually found the cellular tunic, then the muscular, and lastly the peritoneum. This whitish matter, however, in the isolated follicles, presents itself in the shape of little cones. It is rare that we can distinguish an orifice at the summit of those follicles which occupy the extremity of the small intestine, while it is often distinguishable in those follicles of the cœcum, or colon, when they are changed to the same extent.

At the same time that we perceive these changes within the intestine, we also find the lymphatic glands in the neighborhood of the patches evidently diseased; they are considerably enlarged, and of a deeper color than natural. Sometimes, also, they are softened; although there are instances, in which, on the contrary, they become preternaturally hard.

The alteration of the follicles and of the lymphatic glands, above described, generally follows a regular course. It scarcely ever happens that all the follicles of the intestine are affected from the beginning; it is first in the part nearest the ileo-cœcal valve that the lesion is most distinct, the appearance of change diminishing in proportion as we recede from this point; and the same circumstance is observed with regard to the order in which the ulterior changes take place.

Ulceration of the Follicles. — If the patient, instead of dying a few days after the commencement of the attack, sinks at

a later period, during the second stage, the lesion of the follicles presents a different appearance, varying according to the date at which the disease proves fatal, and other less appreciable circumstances.

The first modification which is perceived on the surface of the patches, is in the mucus membrane which covers them. This membrane commences, about the eighth, ninth, or tenth day, or even later, to lose its smooth appearance; it becomes rugous, cracks, and even entirely disappears; giving place to an excavation which penetrates more or less deeply into the layer beneath it, the nature of which has already been explained. The exact period of the development cannot be fixed with precision. Of nine patients who died in the clinical wards during the second period, four presented patches and follicles without ulceration; five showed ulceration in different degrees; and from them it would appear that the ulceration usually begins between the ninth and twelfth days. In some recent works, cases are related in which the patches were untouched by ulceration so late as the twentyeighth and thirtieth day of the disease. However, in admitting that the date of the original attack has, in these cases, been marked with sufficient accuracy, they can only be regarded as exceptions to a general rule, nothing analogous having been observed either by M. Louis or myself; and our cases, taken together, amount to not fewer than ninetytwo, in which the bodies were examined after death. I may therefore state, in a general way, that it is from the eighth to the twelfth, or at most to the fifteenth day, that the ulceration of the mucus membrane commences. Two distinct varieties are met with in these ulcerations. In a certain number of cases, the ulceration which succeeds to the engorgement of the follicles begins in the mucus membrane which covers them. It presents, at first, a small ulcer, which extends in breadth and depth, and precedes the destruction of the layer beneath. In other cases, the ulceration commences with the softening of the layer which is beneath the mucus membrane. Suppuration takes place, as in cases of gangrene, and the mucus membrane, as well as the layer beneath it, constitutes a kind of debris, which has been sometimes looked upon as an eschar. These two forms of ulceration, although very different in their mode of development, are sometimes met with in the same individual, and both equally lead to the same result; namely, the destruction of the mucus membrane, and the adventitious layer which forms in patches beneath it.

The ulceration of the isolated follicles differs little from that already described.

One of the most remarkable phenomena during the period of which we speak, is the color which the patches sometimes assume when the ulceration commences. Occasionally the debris of the patches preserve, even after careful washing, a yellow or green hue, evidently dependent on the action of the bile. As to the rest, however, these cases present nothing remarkable, except merely this yellowness of the eschars.

Intestinal Ulcers. — If the patient sinks at a period still more advanced than we have supposed in the cases above-mentioned, the alteration of the follicles presents new modifications. In some patients, not only do we find no patches remaining, but there is actually no trace of them left, nor any thing but ulcers, which in most cases indicate the situation of the large glands of Peyer, but which, in other cases, occupy different situations, and present forms so various as to lead to reasonable doubts concerning their origin. Sometimes these ulcers are bounded by the cellular texture, the mucus membrane alone having been removed; at other times only the peritoneum remains. The number of these ulcers is also very various; it is rare, however, for it to equal that which is seen when death takes place during the first or second period. The appearance which these ulcers present, although it thus offers numerous varieties, may however be reduced to two principal forms; one which may be called the simple intestinal ulcer and the other which may be called the intestinal ulcer with hypertrophy of the muscular and cellular coats. In the first, the mucus membrane is white and extremely thin, nor is there any appearance of inflammation, or any other degeneration; the bottom alone presents some very small granulations. The second form is recognized by the prominence of the edges and thickening of the textures, which also exhibit marks of inflammation, and sometimes are so firm as to resemble schirrhus.

Perforation of the Intestine. — Sometimes the peritoneum itself becomes involved in the ulceration, after the other textures have been destroyed. In the cases where the accident occurs, the patient is usually seized suddenly, and without obvious cause, with violent pain, followed by symptoms of acute peritonitis, which almost invariably leads to a rapid and fatal termination. On examination after death, effusion into the peritoneum is generally found, and the ulcer detected externally; and on examining it from within, the aperture is found to cor-

respond with an ulceration larger than the opening, which seldom surpasses three lines, and is generally only from one to one and a half. These perforations almost always form in the last foot of the length of the ilium: sometimes there are two, and even three such apertures. As to time, their occurrence varies much — perhaps, on the average, from the fifteenth to the thirtieth day. The accident is sometimes the result of ulceration, sometimes of a true eschar, and sometimes it is produced by the distention of the intestine, causing the rupture of textures weakened by disease.

Cicatrization of Intestinal Ulcers. — Hitherto we have followed the changes which the follicles undergo from their first enlargement to their entire destruction. We shall now consider them in a different point of view, and trace their restoration to health. When the patient sinks at a period more advanced than we have yet supposed, such as six weeks or two months, the edges of the ulcers, which we have described as simple, have become so flat, that it is difficult to say where the mucus membrane ends, and the ulcer begins. At the centre of this last, some small inequalities may be seen, particularly when the part is examined under water. When the patients die at a period still more advanced, sometimes no trace of ulceration is found, but occasionally there is only a slight depression, with a perceptible redness at the points usually occupied by such ulcerations.

Resolution of the Patches. — In those patients who die at a period more advanced than that at which the patches begin to ulcerate, these last, when they are not ulcerated, usually present a less considerable degree of prominence than in those who have died during the first few days. At a period more advanced, this prominence is still less marked; and we may trace it gradually diminishing, till the patches return by degrees to their primitive state. The period at which this resolution commences varies much, and would require a greater number of cases than I have witnessed to determine it. I have seen the resolution far advanced by the twentieth day, and I have seen it apparently but just commencing after the thirtieth.

Lesion confined to one set of Follicles. — The changes which we have been considering occupy, at the same time, the isolated follicles, and the glands of Peyer; but the same alterations may be limited either to the one or the other of these. Cases of this kind are rare; and I do not believe that any authentic instance of this change having been confined exclusive-

ly to the isolated follicles, is to be found in any modern author. It is true, indeed, that if we refer to the plates which are to be found in some of the editions of the work of Rœderer and Wagner, we might believe that the disease which they have described, and the symptoms of which presented in the severer cases a perfect resemblance to those of typhus fever, always gave rise to that variety of ulceration, in which the isolated follicles alone are diseased; but on examining the plates with some care, and comparing them with the text, I am led to think that the drawings had not been made from nature, and that the authors had themselves mistaken the true anatomical character of the disease the history of which they have recorded.

Lesion of the mesenteric ganglia. — The changes in the mesenteric ganglia present numerous varieties. Sometimes they are only increased in bulk, without other appreciable change; sometimes they are also softened; in some I have seen traces of pus, and in others I have found the glands indurated, without being enlarged. These changes are (like those in the follicles) dependent upon the period at which the patient sinks. Thus, where the disease is recent, the glands are found to be much enlarged, and very red, or of a rose color; sometimes, even from an early period, they contain an admixture of pus, giving them a greyish color. In proportion as they are examined at a more advanced period, this grey tint becomes gradually more pronounced, and passes into a slate or dirty yellow, the matter becoming at the same time more and more attenuated. I have never, however, found it entirely fluid, as in an abscess.

At a still more advanced period, corresponding to that at which the follicles, when they have not been ulcerated, return to their natural state, or else to that at which the ulcers begin to cicatrize, the mesenteric ganglia are less tumefied, often less softened; and in following them to a period far removed from the onset of the disease, — as that when the follicles are again quite restored, — the glands are found to be considerably diminished, and nearly restored to their natural size, but red, or violet colored, or even black, both externally and internally, without softening; indeed, on the contrary, they are usually indurated. The following table shows the comparative frequency of these different states of the mesenteric ganglia in typhoid fever: —

The ganglia large, with commencing softening and suppuration from the 7th to the 25th day	14
Idem — very soft, from the 10th to 36th day . . .	12
Idem — filled with a fluid like mucus, on the 21st day .	1
Idem — red, large, and hard, after the 19th day . . .	10
Idem — but little enlarged, — blue, violet, or black, hard, after the 17th day	3
	40

We observe then, in the gradual alteration of the mesenteric glands, the same series of phenomena as in the follicles — namely, considerable increase of size and softening, which goes on augmenting; then, if the disease takes a favorable turn, a gradual diminution, till their healthy condition be restored. The only difference which we perceive between the lesions of these organs is, that the mesenteric glands never ulcerate, at least I have never seen such a case. In general the glands which are nearest the cœcum are those in which the change is most marked; the reason of which is, that the follicles are there most diseased, and the two sets of changes are always in proportion to each other. It would appear that the suppuration of the mesentric glands is not immediately dependent on that of the follicles; that it may exist before the follicles themselves are developed; and that the pus which they contain has not in every case been absorbed, as has been said, from the surface of ulcerations in intestine.

Lesion of the follicles in other diseases than typhus. — One of the most important characteristics of the alterations of the follicles which we have described is, that they are only found as a consequence of typhus fever. It is true that disease of these follicles is met with in some other affections, as cholera, scarlatina, and phthisis; though not so constantly as in fever.

Lesions in Cholera. — In the greater number of those who died of cholera in 1832, the intestinal follicles presented an obvious prominence, sometimes confined to the glands of Brunner alone, at others occupying both those glands and the aggravated follicles. These follicles, the prominence of which never exceeds the fifth or fourth part of a line, are usually of the same color as the intestine, but of a somewhat deeper tint, because of their thickness; sometimes they are of a dull white, like a thin layer of albumen; sometimes they are uniformly red; at others, of a deep brown. The characters which distinguish

this morbid alteration from that which occurs in typhus, are— 1st, the difference of the prominence, which is never so considerable in cholera as to lead to the patches which are found being confounded with those which occur in typhus; 2dly, the uniformity of the lesion at all periods of the disease. I have always found the same lesion without any change in cholera, at whatever period the patient may have died — from twentyfour hours to thirty, and even thirtysix days after the commencement. In no case have I found eschars, or ulcerations; nor, consequently, the lesions which succeed to these. This circumstance is of great interest, because it shows how unimportant a part the lesion of the follicles enacts in the different forms which cholera presents at its different periods.

Lesions in Phthisis. — There is more resemblance between the lesion of the follicles in typhus fever and phthisis. In many of those who die at an advanced period of phthisis, we remark sometimes, throughout the whole length of the small intestine, isolated follicles, nearly as large as those which are met with in typhus fever, and, like them, filled with a firm whitish matter; the others ulcerated, with salient edges, from a quarter of a line to a line in thickness. Now thus far there is little difference; but it is rare, in phthisis, to see the isolated follicles alone affected; most frequently the glands of Peyer are so likewise, and present a condition so different from that met with in fever, as to leave no doubt as to the nature of the alteration, at whatever period it is examined. We never see the tuberculous matter spread on the surface of Peyer's glands in such manner as to resemble the patches of typhus; on the contrary, these glands present a small number of tumors, absolutely resembling isolated tuberculous follicles, becoming developed at the distance of one or two lines from each other, generally from the centre towards the circumference; and so slowly that those of the circumference contain only tubercles, when those towards the centre are already completely ulcerated; when, after the ulceration of all the follicles, there remains no trace but one vast ulcer, it might be difficult to distinguish the two conditions under comparison; however, the hardness and thickness of all the tissues which surround a tuberculous ulcer will generally suffice to distinguish it. Besides, the mesenteric glands, at the period we suppose, are in phthisis usually like large white tubercles more or less softened, and cannot be confounded with those of typhus, which at a period equally advanced, are small in size, and red, violet, or black.

Lesion of the follicles in Scarlatina. — This differs but little from what has been described above as occurring in cholera. There is usually a slight hypertrophy, with redness of the follicles and glands of Peyer, but which never attains the thickness which we see in typhus, and which never ends in ulceration.

Connexion between the symptoms and the above morbid changes. — After having exposed the symptoms which typhus displays during life, and the lesions which are constantly, or almost constantly, presented after death, we are naturally led to inquire, as far as it is possible to do so, if there exists a constant relation between the principal symptoms of the disease and the different varieties of lesion in the follicles during life. We shall take successively the chief symptoms, and subject them to this examination. The headache, which was only wanting in one out of fortytwo patients who died, and which was often the first symptom of the disease, can scarcely be looked upon as connected with lesions which it has preceded, neither was any appreciable connexion discovered between its subsidence, and the particular condition of the follicles. The stupor, which is generally developed during the first, or at the commencement of the second period, is a symptom of great importance : it is always united to much prostration of strength, and only disappears when the disease has taken a decidedly favorable turn. Two opinions have been advanced with respect to this symptom, in relation to the intestinal lesions ; one, that it did not occur till the patient was already worn out by the long continuance of the disease ; the other, that the adynamic state does not come on, except in proportion as the gastro-intestinal affection terminates in ulceration, suppuration, or gangrene. As these opinions have been maintained with talent, and the latter, particularly, apparently even supported by certain facts advanced in its favor, I shall relate the results of my own observation.

Twentynine patients out of the fortytwo who died showed a great degree of stupor; of these, twentyone were in this state when admitted, and eight became affected with it during their sojourn in the hospital. Of twentyone who were admitted in a state of marked stupor, two were received the fourth day of the disease, three the fifth day, two the seventh day, two the ninth day, two the tenth day, two the twelfth, four from the twelfth to the sixteenth day, three from the sixteenth to the twentysecond day, one the thirtysixth day. Again, of

those in whom the stupor supervened after their admission, in one the symptoms occurred on the sixth day, in one on the tenth, in two on the eleventh, one on the twelfth, one on the twentieth, one on the twentythird, one on the twentyninth. Thus, of twentynine patients who had stupor, in four, at least, this phenomena came on before the period at which the intestinal patches became ulcerated. The doctrine which attributes the stupor, and other adynamic symptoms to the absorption of pus and debris from the intestines, is not better founded In four of the above twentynine cases, suppuration could not have yet occurred when the stupor came on ; and again, in numerous instances where death took place without ulceration and suppuration of the intestinal follicles, stupor had been present. The acute delirium does not appear to be connected with the state of the follicles, any more than the headache and stupor. Of the fortytwo patients who died, twenty only had delirium, and the symptom did not appear to be peculiar to any one stage of the disease more than another.

Diarrhœa was present in thirtyfour out of fortytwo, at the time of their admission, and in six only did it supervene during their stay in the hospital.

We may perhaps conclude from these facts, that the varieties of lesion in the follicles and mesenteric glands do not announce themselves by any particular phenomenon ; and that the symptoms (except perhaps the purging, pain about the abdomen and borborygmi) are the expressions of the morbid influence upon the entire economy — the disorder which it carries into the principal functions, and that they rather belong to the disease itself, than constitute the effects of the diseased state of the follicles.

Sir Thomas Browne, — Religio Medici.

We are pleased to observe that one of the earliest volumes of the 'Library of Old English Prose Writers,' edited by Rev. Alexander Young, is devoted to some of the most valuable writings of that learned and estimable physician, Sir Thomas Browne. In thus presenting to the present generation, in so agreeable a form, the almost obsolete compositions of one of

the patriarchs of our profession, our reverend friend has rendered a twofold benefit to his successors; for while a portion of the respect and favor, which the perusal of this volume cannot fail to awaken for its author, will be reflected on the whole medical fraternity, so rare an example of literary excellence, associated with eminent medical attainments and success, cannot be rendered conspicuous and accessible, without provoking imitation, and inspiring a more universal love and cultivation of polite learning among physicians. No one, at all conversant with the current medical literature, will doubt that this is a 'consummation most devoutly to be wished' — for if the complaint, that pure literature is, at the present time, undervalued by studious men generally, be well founded, it must be confessed that no portion of them are so obnoxious to the reproach it implies, as the physicians. How rarely do we fall upon a medical volume or essay now-a-days, which does any credit whatever to the scholarship of its author. To say nothing of the choice language, the rhetorical arrangement, and copious illustration which constitute an elegant style, how few publications are there, either from the English or American portion of the profession, which are not deficient even in the elements of good composition — how many, whose authors seem to be as ignorant or regardless of prosody, as of the το πρεπον and how many still, to which any tolerable critic might fairly deny the claim they assert, of being written in the English language.

How frequently is it the case, that practical observations, of the most important character, almost defy perusal, by the slovenly, vulgar, or incongruous terms and style in which they are presented, while a vast deal of valuable professional experience is daily buried with its possessors, on account of the irksomeness or impracticability of composition, consequent on an education and subsequent course of study, neither of which had been directed to literary acquisitions and habits.

Those who undertake the conduct of medical education, are therefore, partially accountable for the imperfect scholarship of the profession. The multiplied medical schools in this country, — some of them officered by men who can neither speak nor write their vernacular tongue correctly; many established and conducted only on mercenary considerations, and all of them striving to outdo their competitors in the number of their graduates, rather than in their superior accomplishments as members of a profession which claims to be a learned and

liberal one — these schools, we regret to say, instead of elevating the character of medical men as a class, serve rather to extend and perpetuate its decline.

We cannot but exhort to a reform in this matter, though it is with little hope of success Let our 'Faculties of Medicine,' or at least such of them as have any claim to respectability themselves, abandon their undignified scramble for students, and substitute therefor the requisition of a more extensive and thorough course of preparatory study than is now required; insisting, especially, on a handsome degree of classical attainments, which constitute the rudiments, and the only rudiments of eminent, or even respectable scholarship.

In all the exercises of the medical pupilage, let general and polite learning be inculcated in connection with professional knowledge, and the student always be reminded, that he is to be a man of letters as well as a 'Doctor of physic,' and that he has a right, and should be ambitious to vindicate it, to a place among the scholars of his day, while he prosecutes the less conspicuous, but more honorable, because more beneficent, offices of the healing art. Impressed with these worthy views of the dignity and obligations of his profession, and furnished with a corresponding education, the young physician will leave the school prepared and determined to redeem its character for good learning, and to do his share towards establishing the literary reputation of his country. In due time we might expect to find the physicians doing for the cause of letters, what they are now doing for that of science, and to observe among American practitioners, the classical learning and elegant scholarship of a Linacre, a Radcliffe, a Grooch, or a Sir Thomas Browne, combined, as in them, with profound and extensive professional attainments, and rendering their possessors as illustrious, amiable, and beneficent, as were those patriarchs of British medicine.

But it may be objected that the public do not want, and will not prefer, learned physicians; and that, as most gentlemen enter the profession as a means of livelihood, they will not prosecute studies in which they may have been initiated at the school, when they find that the accomplishments to which they lead are not appreciated in such a way as to promote their speedy establishment in business.

It must be confessed, that the preferences of the community in regard to physicians, do not appear to be influenced, so generally as could be desired, by the science or letters of the

the parties ; but are often bestowed most capriciously, and in most discouraging disregard of those qualifications on which an honorable man would rest his claims to success. But this fact only illustrates the general truth of the proverb, that 'the race is not *always* to the swift, nor the battle to the strong,' and although apparently frequent enough in the relation we are contemplating, to become the *rule*, should, for practical purposes, be regarded only as an *exception.* Moreover, this discouragement is not peculiar to our country or times ; but has always existed, and, in former times, to a much greater degree probably, than at present. Dr. Johnson says, in his life of Aikinside, that 'a physician in a great city seems to be the mere plaything of fortune ; his degree of reputation is, for the most part, totally casual, they that employ him know not his excellence : they that reject him know not his deficiences.' Still earlier we have a witness, not indeed to the want of discrimination, but to the positively base and unworthy judgments of the public, in determining the patronage of physicians, in the advice of one of the 'Fathers,' to a studious young friend, touching the laborious method he had adopted for the attainment of professional success. 'O juvenis, tua doctrina non promittit opes — *plebs amat remedia.*' And the people still love nostrums, and incline to despise 'book learning,' and are slow to believe that the recognition and treatment of diseases constitute a science and art, which are to be obtained and perfected by the same intellectual exercises as all the rest of the circle. Although the grosser manifestations of this superstition have disappeared ; although an open pretention to magic and the 'black-art' in the cure of diseases, would not succeed now, as it did no longer ago than the time of Sydenham, still, the quality in human nature which evolved itself in the form of those superstitions has not gone with them, but exists in altered shapes. Hence the favor which 'natural' doctors find over educated ones, not only among the vulgar, but even with persons otherwise intelligent and refined. Whatever be the explanation, the fact is undeniable, and is a just matter of complaint, that scholarship, as a qualification for the satisfactory exercise of our profession, has generally been much less appreciated, than in the case of any other pursuit, whose resources and processes can be made available only by direct intellectual effort.

The clergyman and lawyer must not only be sound in their respective opinions, and expert in the exposition of them, but

those who would be eminent and prosperous, must add the accomplishments of eloquence and the refinement of character which is naturally associated with intellectual culture. But, for the physician, a certain busy punctuality in the routine of his office, and a facility in recommending medicines, are the essentials to success, — the literature and polish, so valuable to the others, being regarded as matters of supererogation at least, if not as positive objections, in him.

While this continues to be the case, it will be, of course, a great hindrance to any improvement in the literary character of the profession. But physicians may do much to eradicate this perverse sentiment, and relieve themselves from its debasing influences, if they will. Let them cherish and manifest at all times, elevated and worthy views of the objects and services of the profession, having regard to something higher than the pecuniary emolument it promises, and aiming at a distinction above that of favorite prescribers and apothecaries. In the second place, let them resist the tendency of society, which is encouraged by the monkish habits, and sinister views of some of their members, to erect them into a distinct caste, whose province is to be without the circle of affairs of general interest to the community, and whose duties are incompatible with a participation in the interests, enterprises, and pleasures of other respectable and industrious citizens. And, finally, let them visit with unqualified disapprobation, and the forfeiture of all professional recognition, every member of it who seeks the public favor and patronage by means which compromise the dignity of his calling, or are unbecoming a gentleman and scholar.

Although we have been led in the above hasty remarks, far beyond our original purpose, which was merely an introduction to a brief notice of Sir Thomas Browne and his writings, we offer no apology to our readers, most of whom being medical men, we are bound and happy to believe, are jealous for the honor of our common profession, and anxious to preserve for it that fair fame and just influence, which the labors and virtues of many illustrious members in past times, have bequeathed, and who will therefore pardon the unworthiness of our observations, to that same jealousy and anxiety, by which, we assure them, they were suggested. We will only add our conviction, that the main security for the honor and fair fame of our profession, the only means of preventing its degenerating into a systematic empyricism, a mere trade in pills and potions, is the insisting

on an elevated standard of scholarship among its members, as the grand title to respectability and patronage.

Sir Thomas Browne was an English physician who flourished about the middle of the 17th century, and in 1671, received at Norwich, the honor of knighthood from Charles II.

He was much esteemed as a practitioner, and especially distinguished for his general learning and classical accomplishments, and was a popular and elegant writer for his time, on a great variety of subjects.

He is most extensively and favorably known as an author, however, by his first production — the Religio Medici.

This interesting essay is just what its title literally implies — the religion of a physician, that is, of the author himself. Dr. Johnson has significantly described the general character of this famous composition in the following brief paragraph.

'The "Religio Medici" was no sooner published than it excited the attention of the public, by the novelty of paradoxes, the dignity of sentiment, the quick succession of images, the multitude of abstruse allusions, the subtlety of disquisition, and the strength of language.'

The style of the essay thoughout, is a curiosity in letters, and although quaint and antiquated, and of course, not to be imitated, is, nevertheless, truly agreeable. And it will always continue to be so, whatever revolutions of taste may occur; for, if we may be pardoned the allusion, it contains too much attic salt, ever to become offensive.

We can only add a quotation or two, which will exemplify at once, the peculiar manner of the author, and the depth, purity, and liberality of his religious and philanthropic principles and feelings.

'For my religion, though there be several circumstances that might persuade the world I have none at all, as the general scandal of my profession, the natural course of my studies, the indifferency of my behaviour and discourse in matters of religion, neither violently defending one, nor with that common ardor and contention opposing another; yet in despite hereof, I dare, without usurpation, assume the honorable style of a Christian. Not that I merely owe this title to the font, my education, of clime wherein I was born, as being bred up either to confirm those principles my parents instilled into my understanding, or by a general consent proceed in the religion of my country. But having, in my riper years and confirmed judgment, seen and

examined all, I find myself obliged, by the principles of grace, and the law of mine own reason, to embrace no other name but this. Neither doth herein my zeal so far make me forget the general charity I owe unto humanity, as rather to hate than pity Turks, Infidels, and (what is worse) Jews; rather contenting myself to enjoy that happy style, than malign those who refuse so glorious a title.' * * *

'My common conversation I do acknowledge austere, my behavior full of rigor, sometimes not without morosity. Yet at my devotion I love to use the civility of my knee, my hat, and hand, with all those outward and sensible motions which may express or promote my invisible devotion. I should violate my own arm rather than a church, nor willingly deface the name of saint or martyr. At the sight of a cross or crucifix I can dispense with my hat, but scarce with the thought or memory of my Saviour. I cannot laugh at, but rather pity the fruitless journeys of pilgrims, or contemn the miserable condition of friars; for though misplaced in circumstances, there is something in it of devotion. I could never hear the Ave-Mary bell* without an elevation, or think it a sufficient warrant because they erred in one circumstance, for me to err in all, that is, in silence and dumb contempt; whilst therefore they directed their devotions to her, I offered mine to God, and rectified the errors of their prayers, by rightly ordering mine own.' * * * *

'I thank God, and with joy I mention it, I was never afraid of hell, or never grew pale at the description of that place. I have so fixed my contemplations on heaven, that I have almost forgot the idea of hell, and am afraid rather to lose the joys of the one, than endure the misery of the other. To be deprived of them is a perfect hell, and needs, methinks, no addition to complete our afflictions. That terrible term hath never detained me from sin, nor do I owe any good action to the name thereof. I fear God, yet am not afraid of him; his mercies make me ashamed of my sins, before his judgments afraid thereof.' * * * *

'But to return from philosophy to charity. I hold not so narrow a conceit of this virtue, as to conceive that to give alms is only to be charitable, or think a piece of liberality can comprehend the total of charity. Divinity hath wisely divided the

* A church bell that tolls every day at six and twelve o'clock; at the hearing whereof, every one, in what place soever, either of house or street, betakes himself to his prayer, which is commonly directed to the Virgin.

act thereof into many branches, and hath taught us, in this narrow way, many paths unto goodness. As many ways as we may do good, so many ways we may be charitable. There are infirmities, not only of body, but of soul and fortunes, which do require the merciful hand of our abilities. I cannot contemn a man for ignorance, but behold him with as much pity as I do Lazarus. It is no greater charity to cloth his body than apparel the nakedness of his soul. It is an honorable object to see the reasons of other men wear our liveries, and their borrowed understandings do homage to the bounty of ours. It is the cheapest way of beneficence, and like the natural charity of the sun, illuminates another without obscuring itself.' * * * *

'Now if we can bring our affections to look beyond the body, and cast an eye upon the soul, we have found out the true object, not only of friendship, but charity; and the greatest happiness that we can bequeath the soul, is that wherein we all do place our last felicity, salvation; which, though it be not in our power to bestow, it is in our charity and pious invocations to desire, if not procure and further. I cannot contentedly frame a prayer for myself in particular, without a catalogue for my friends; nor request a happiness wherein my sociable disposition doth not desire the fellowship of my neighbor. I never hear the toll of a passing-bell, though in my mirth, without my prayers and best wishes for the departing spirit. I cannot go to cure the body of my patient, but I forget my profession, and call unto God for his soul. I cannot see one say his prayers, but, instead of imitating him, I fall into a supplication for him, who perhaps is no more to me than a common nature; and if God hath vouchsafed an ear to my supplications, there are surely many happy that never saw me, and enjoy the blessing of my unknown devotions.'

Case of Monstrosity affecting the Genital Organs.

Communicated for the Medical Magazine,

By Austin Flint, M. D.

An infant child twelve months old, was brought to us for examination, presenting an anomalous conformation, or disposition of the external parts of generation, a brief description of

which, perhaps, may possess sufficient novelty and practical interest to be presented to the readers of your Magazine.

On exposing the parts, they appeared, at first view, to have the distinguishing external characters of the female sex. There were present, what seemed to be well formed, though higher and more prominent than usual, *labia externa;* and on a superficial examination, the infant might have been declared *a girl* Separating these labia, however slightly, we discovered at the upper commissure, a body which proved to be a glans penis, sufficiently developed, enclosed within a long prepuce. The rudiment of an urethra we observed on the inferior part of the glans, *but no opening*. Separating these labia further, following downward and inward the body of the penis, at about one inch and three or four lines from the external meeting of the labia, we exposed the outlet of the urethra. From this outlet to the glans, the urethra was continued in the form of an open canal, presenting an appearance as if the inferior part of the penis had been cut off by a longitudinal section, embracing half of the urethra. From this outlet of the urethra the urine is discharged freely, and attended with no trouble, except the little excoriation produced on the inner surface of these apparent labia.

In these apparent labia were contained the testicles; as large as we should expect to find them in an infant of this age.

Cases of malformation are interesting and important in two views, — 1st, with reference to the processes and laws of the evolution of the different parts of the organization. In this view, are the instances of the union of more or less of the distinguishing characters of the two sexes in one individual worthy of investigation, rather than with reference to the gratuitous hypothesis of hermaphrodism.

The above case is especially characterised by the entire absence of the scrotum. The testicles were not below the penis, but by its side. (I was not so careful to note the situation of the testicles with relation to the *os pubis*, as I wish I had been.) In this situation they were enveloped, in some measure, at the expense of the surrounding integuments; and, in this way, the body of the penis lost, as in cases of hydrocele, with this difference, viz. that the testicles form two small oblong tumors on each side of the penis. Thus, the apparent female labia may be accounted for. But, besides this mechanical cause, as it appeared to me, there was, in compen-

sation for the deficiency of the scrotum, a disposition in the integuments to assume the form of the external parts in the female, derived from an organic determination.

2d. In a *practical* view, — giving occasion for surgical assistance. An operation in this case is deemed practicable, in order to extend the urethra, by an artificial duct to its proper point of outlet, the glans. It was, however, thought best, since there are no difficulties rendering an operation immediately called for, to wait until the organs have become more developed.

Provided this operation be successful, the individual at the adult age, will have the capacity of procreation ; the degree of perfection with which he will be able to perform the copulative act, however, will depend on the relation which the penis and the testicles preserve, as they both increase to their full development. It is possible that the testicles will assume more and more, as he increases in age, their proper situation below the penis, and a scrotum be gradually formed.

Northampton, Mass. Dec. 1834.

Thomsonianism, — Swaim's Panacea.

If there be any thing to which this Journal is pledged, it is to an uncompromising hostility to quackery, in whatever form, place, or connection it may be encountered. We consider quacks and all their aiders and abettors, as the law does pirates, to be 'hostes humani generis' — reckless bucaneers on the high seas of life, not only robbing the voyagers of their moneyed wealth, but levying heavy contributions on the more precious treasures of health and the constitution.

The famous medical impositions named at the head of this article, have respectively found champions, of late, whose names and titles, together with the vulgar consideration which such accidents procure, probably constitute their only just claim to any special reprehension, over the herd of dupes and knaves whose 'certificates' are at the service of any nostrum-monger pisposed to cajole or bribe them.

One of these distinguished gentlemen, is announced at the head of his 'certificate,' as 'the Hon. George W. Erving, late minister of the United States to Spain and Denmark,' and the other, although only his initials are appended to his 'Thomsonianism,' is

recognised at once by those acquainted with the characteristic modesty and amiableness of his writings, as the person whose name is accompanied with a greater number of letters denoting academic distinctions, than any other on the College catalogue. Thus have diplomacy and letters left their elevated and refined functions, and become volunteers or hirelings in the cause of quackery. But to particularize a little. — The newspapers of the last month have been circulating a letter from the Ex-honorable Mr. Erving, dated at Paris, and addressed to 'a friend in Philadelphia,' with instructions to 'transmit it to Mr. Swaim.' The letter is a very respectable one of its kind, and will probably do something to revive the waning fortunes of the Panacea. It relates, of course, the author's personal experience of the healing virtues of the drug, — how he had been afflicted for fourteen years with an *herpetic eruption*(?), had consulted the most eminent physicians, and finally was perfectly cured by a few bottles of the panacea. Full of gratitude and admiration of the medicine, he recommends it to an old Count, who is afflicted in the same way; but first feels bound to ascertain whether it contains any mercury — although a sovereign remedy this, for certain kinds of 'herpetic eruptions,' as Mr. Erving may have unwittingly experienced, — and, accordingly, puts a bottle into the hands of a French chemist, and appends the result of his analysis to the letter, as likely to be 'useful to Mr. Swaim' in counteracting Dr. Hare's refutation of the imposter's falsehoods on this point. This refutation was published several years since, and has been confirmed by many physicians, who have detected mercury in the panacea, both by the chemical and physiological test. The French analysis may also be, and probably is, a correct account of the composition of the article examined; but, it is perfectly well known that different parcels of the medicine are differently made, on purpose to occasion such discrepancies, some of them containing mercury, some arsenic, and some again, bearing the same name and appearance as the others, only the syrup of sarsaparilla and other vegetable ex tracts. But it is a trifling question for Mr. Erving to trouble himself or others with, whether the artist employs *minerals* in the fabrication of his nostrum or not, while he is insensible to the disgrace and immorality of lending his name and influence to a gross piece of empyricism.

There is another question, and one in which the community and our infirm race are deeply and universally interested— whether the thousand diseases that flesh is heir to, shall be

studied with discrimination, their phenomena observed and generalized into laws, and their treatment conducted on intelligent views of the structure and properties of the parts affected, by the application of known agents, whose chemical properties and physiological relations have been determined by scientific processes, or whether the sick shall be submitted to the random applications and vulgar arts of presumptuous and ignorant men and women — on this great question, Mr. Erving has taken ground which few honest men, in a civilized community, would find it easy to reconcile with good taste, or a good conscience. His delinquency is much greater than would be that of cheating his friend into the use of a little mercury however adverse it might be to his known prejudices; for he has contributed to extend and perpetuate these same senseless prejudices in society, which are the most potent adversaries of philosophical medicine, and the most familiar aids and apologies for empyricism. In the controversy between science and empyricism, he is found with the latter—and there we will leave him, it being our only purpose in this brief notice, to expose the real character of the new species of negociation in which he seeks to figure, and to extend, so far as the limited circulation of the Magazine will do it, the equivocal reputation, which such a 'ministry' is likely to confer.

In the Courier of last Tuesday, appeared a letter dated at Cambridge, and signed B. W., containing a fulsome and pedantic eulogium on the 'Thomsonian System,' as it is called, and a flattering recommendation to 'that privileged body of physicians denominated through courtesy, the 'faculty,' to take their place at the feet of Samuel Thompson, as the great medical luminary of his day. The writer is no other than Dr. Benjamin Waterhouse, who was once distinguished as a physician and scholar, but has been known to the public of late, only as a splenetic scribbler in the daily prints. Among the few subjects that have secured his favorable notice, is the quackery of Thompson, which has repeatedly received the services of his hackneyed pen, before the present occasion. It has been surprising, to those who have continued to appreciate the Doctor's opinions according to his former reputation, to find him lending his influence to so unworthy a cause; and some have doubtless become more favorably affected towards it, from his complimentary representations. But with such as have observed his entire course of life, it is much less difficult to explain, than to justify, this, and several other perversities of his later years. It is a proverb founded in one of the most unamiable frailties

of our nature, that 'we never forgive those we have once greatly injured.' Our elder brethren and fathers in the profession, will understand the application. For others, it must suffice to say, that some thirty years ago, the Doctor's inordinate vanity, which has always been emphatically his evil genius, involved him in a controversy with his colleagues in the University, which he conducted in a manner that brought no honor to himself, and was thought highly discreditable to the profession of which he was then a conspicuous member. It terminated in his defeat, and led on to a series of mortifications, which, acting on a temperament naturally haughty and irritable, have embittered him towards every thing, the most remotely related to the subject of his difficulties. The medical profession especially, or the 'faculty,' as he sneeringly terms it, from the time he lampooned a distinguished member of it, in the 'little anecdote,' to the present day, has found him a complete Ishmael — verifying the remark, that there is no enemy so annoying as a self-alienated friend.

Hence Dr. Waterhouse's Thomsonianism — it is not that he loves Thompson more, but that he loves the 'faculty' less — and thinks to vex and injure the latter, in proportion as he succeeds the former. This, we candidly believe to be the height and depth, and whole extent of Dr. Waterhouse's affected regard for Thompson and his system. But the question is not between Thompson, or any other quack, and the profession. Physicians are not likely to expose themselves to the hazards of empyricism. It is the unprofessional portion of the citizens, who are in danger of becoming victims to its impositions, and these the Doctor seems willing to expose to the hazardous 'process,' which he is 'astonished is not attended with more fatal accidents,' for the sake of annoying the 'faculty' by the sacrifice of their patients and friends to a violent and indiscriminate medication which he has contributed to establish.

We have penned the above remarks, which some may think unnecessarily offensive to the subject of them, not in mere wantonness, nor from a malicious impulse; but for the purpose of counteracting, so far as they may do it, the effect of his eulogia upon what we consider the most mischievous system of quackery now in vogue, by showing that his pretended approbation of it, is probably nothing but spite against something, or everything else, and by exposing the unworthy considerations which we believe, perhaps unconsciously, have prompted such warm professions of regard for it. As for the subject-matter of

the letter — the merits of Thompsonianism — we have not a word to say, and hope we shall never be tempted into such a discussion. That which has been declared to be a *crime* by the courts of the country, is out of the predicament of reputable controversy.

COLLECTANEA.

M. Bouillaud, on the Sounds of the Heart. — The problem of the sounds of the heart has for some time engaged the attention of physiologists and physicians. In one of the late sittings of the Academy, a memoir was read on the subject by one of your most distinguished members — M. Magendie. However simple and ingenious the theory of this celebrated physiologist, I must confess that it does not appear to me to satisfy all the conditions of the problem : it only, at best, raises a doubt of that theory which attributes the double sound to the play of the valves. It was with a view to remove the uncertainty thus thrown on a question which has been for some years an object of attentive study with me, that I had recourse to direct experiment; and the following are the results which I arrived at.

Yesterday, the 23d February, 1834. I laid bare the heart of a strong healthy cock, having previously explored the double sound of the organ. I heard the sounds while the heart was still enveloped in the pericardium, and after that membrane was removed. I heard them with the naked ear, and also with the stethoscope : I repeated the trial several times, and I can aver that I very distinctly heard the double sound, or *tic-tac* of the heart, though there was no sort of contact between the organ and the parietes of the chest, — none whatever between it and the sternum. I even placed a pretty thick piece of linen between my ear and the heart to avoid the blood flowing from the wound, — and still I heard the double sound : in the latter case, however, it was as if muffled *(voilé.)*

I observed that the friction of the heart against the end of the stethoscope produced a particular noise ; but so different from that of the *tic-tac*, that there was no possibility of confounding them. I removed the heart from the chest, having divided all the vessels by which it is, as it were, suspended; and it continued to pulsate for some moments, either spontaneously, or by the influ-

ence of an artificial excitement. These pulsations *in vacuo (a vide)*, so to speak, were not accompanied by any sound. The cock, by the way, still continued to live for some moments after the excision of his heart.

I repeated the same experiment on two rabbits of moderate strength, and it was attended by the same results; that is to say, I heard the sounds of the heart perfectly, after the organ had ceased to have any connexion with the walls of the chest. I would merely add that I did not notice very distinctly in the cock the contraction of the auricles; but in the rabbits I did so in the most satisfactory manner: the contractions, however, were certainly better marked in the appendages of the auricles than elsewhere.

It is not my intention to draw any decisive inference from these experiments, which are at variance with those of one of the first physiologists of the age; but I am desirous of submitting them to the judgment of the academy, as well as to M. Magendie himself.

In conclusion, I have only to observe, that the results of the examination of the sounds of the heart, as I have obtained them, only tend to confirm me in the opinion that the double sound is principally owing to the play of the valves; and that the ingenious system of M. Magendie cannot be admitted without some reserve and drawback. Dr. Hope's experiments, I may add, on larger animals, as on the ass, are perfectly conformable to those I have just now described. — *Medical Gazette.*

Effects of Music. — In the *Repertoire Medico-Chirurgicale* of Piedmont, for June 1834, Dr. Brofferio relates a case illustrative of the morbid effects of music. A woman, 28 years of age, of a robust constitution, married, but without children, attended a ball which was given on occasion of a rural fête in her native village. It so happened that she had never heard the music of an orchestra before: she was charmed with it, and danced for three days successively, during which the festivity lasted. But though the ball was at an end, the woman continued to hear the music: whether she ate, drank, walked, or went to bed, still was she haunted by the harmonies of the orchestra. She was sleepless; her digestive organs began to suffer, and ultimately her whole system was deranged. Various remedies were tried, to drown the imaginary music; but the more her body became enfeebled, the more intensely did the musical sounds disturb her mind. She sunk at last, after six months' nervous suffering. It should be added, that the leader of the band having occasionally indulged in a discordant *capriccio*, for the amusement of his auditors, the notes which he played produced the most torturing effect when they

recurred to the imagination of the patient: 'those horrid sounds!' she would cry, as she held her head between her hands. There is nothing so very extraordinary in this case, as it regards the mere repetition of sounds in the *sensorium*, in consequence of a long continued impression originally made; but that it should be carried to the extent of causing a nervous affection, terminating fatally, is what seems to render the case unique. An anecdote is told of the celebrated Mademoiselle Clairon, which has some analogy to the preceding. A man once shot himself on her account. Ever after, as regularly as one o'clock at night came, Melle. Clairon heard the report of a pistol. Whether she was at a ball, — in bed asleep, — at an inn, — on a journey, — no matter; when the moment arrived, the shot was heard; it was louder than the music of the ball; startled her from her sleep; and was heard as well in the court-yard of an inn, as in a palace. — *Medical Gazette.*

Torsion of Arteries instead of Ligature. — M. Trier, Surgeon in chief to the Hospital of Altona, has written an account of his experience of M. Amussat's method. He says that at first he had no great reason to congratulate himself on his success, as secondary hæmorrhage in several instances supervened; but by practice he has been made perfect. For several years he has employed torsion exclusively, instead of ligature, and always with success. He has now *twisted* almost all the great arteries of the body; those that supply the brain, and the tongue, the thoracic arteries, the humeral, the radial, the femoral as it passes under Poupart's ligament, and as it runs in the middle of the thigh, &c. He concludes his letter, which is addressed to the Academy, by recommending the method of torsion to the more general practice of French surgeons. — *Ib.*

Salivation by Sarsaparilla. — It is mentioned by Cox, in his Narrative of a Residence on the Columbia River, that several of his party, who used the fresh sarsaparilla, which grows in abundance in this situation, were salivated by it. This fact is interesting as connected with the antisiphilitic and antimercurial powers of the remedy. We do not know whether the homœopathists have got possession of this circumstance, but if not they are heartily welcome to it. — *Dublin Journal.*

Variations of the Pulse, &c. — At the late meeting of the British Association, at Edinburgh, Dr. MacDonnell read a very curious paper, showing that the variations of the pulse produced

by posture are independent of muscular action; the acceleration always following the angle of inclination of the body, whether the patient be asleep or awake.

Dr. Bushnan exhibited some worms which he asserted had been found in the blood of a female. A discussion ensued, during which several medical men declared that they had ascertained the woman to be an imposter, and that the worms, when examined by Mr. Rhind, had proved to be the same that are found in common ditch-water. — *Lancet.*

Fragmenta de Viribus Medicamentorum positivis, sive in sano Corpore humano observatis. A Samuele Hahnemann, M. D. Edidit F. F. Quin, M. D. Medicus Ordinarius Leopoldi, Primi Regis Belgarum, &c. — London, 1834. 8vo. pp. 214. — Sir Gilbert Blane observes, in his Select Dissertations, (vol. i. p. 201 *et seq.* 2d edition,) that it would be an instructive thing to compare the results in a given disease, when nothing is done, with those which are obtained from the exhibition of remedies. In the present state of the medical art, however, he thinks it unjustifiable to leave the patient to the resources of nature; and therefore the comparison can be instituted only by observing what results were obtained in the infancy of our art, when inert remedies alone were often administered. He accordingly takes forty-two cases of acute disease, detailed by Hippocrates in two sections of one of his works, and finding that, of these, twentyfive terminated fatally, exults in the improvement of the medical art that has since taken place. Now Sir Gilbert appears to us to have misunderstood the scope of the work of the Father of Physic. It was not intended to give the average results of his method of treatment, but the more interesting cases which had occurred to him. The sage of Cos was not writing to get into practice, and therefore did not think it necessary to trumpet forth his successful cases; he selected those which were the most instructive, those in which the symptoms were the most severe, and the character of the disease consequently best developed. Hence these cases can by no means be quoted as showing the average result of medical practice B. C. 400.*

But what Hippocrates did not show, Hahnemann does. His

* It is pleasant to see the way in which a celebrated compiler has touched upon this subject. One might almost suppose that he imagined the forty-two cases to have formed the sum total of Hippocrates's practice. 'Skilful and diligent in his profession, he openly declared the measures which he had taken to cure a disease, and candidly confesses, that of fortytwo patients which were entrusted to his care, only seventeen had recovered, and the rest had fallen a prey to the distemper, in spite of his medical applications.' — *Lempriere's Class. Dict.*, art. Hippocrates. 8vo. edition 1809

method of giving a disguised nothing, a well dressed and innocent zero to the patient, allows full scope to the *vis medicatrix naturæ*. It is on this account that we think homœopathy worth the attention of the most enlightened physician; for, if the followers of Hahnemann outrage common sense by their theory, they often appeal to it by their practice; and the results of the swallowed infinitesimals might have convinced Sir Gilbert Blane that if diseases, even acute ones, are let alone, the mortality will not be twentyfive in fortytwo. It would be absurd, indeed, when the case clearly admits of being benefited by medicine, to follow the system of the nothingarians; but it may afford encouragement to the hypochondriac physician, who often fears both the disease and the remedy, to know that his maxim of *saltem non nocere* is a just one, and that it is not necessary to kill patients, on the supposition that the only alternative is to let them die. And thus it is that, as chemistry borrowed much that was valuable from alchemy, so homœopathy will throw new light on the practice of physic.

The work before us consists of Hahnemann's account of the effects of a number of remedies on the healthy body: these effects are apparently those produced by small doses; and he subjoins the symptoms as given by other authors, being apparently those resulting from large ones: thus, for example, Hahnemann gives the following account of the symptoms produced by cantharides.

'Lytta Vesicatoria L.

(Pulveris Tinctura.)

Vis.*

'Micturitio.
'Lotium guttatim destillans.
'Dolor pressorio lancinans in vesicæ collo.
'Formicatio et pruritus in urethrâ inter mictum.
'Dolor mordax in urethrâ inter mictum.
'Dolor strictorius in artibus, fere paralyticus.
'Dolor in affectâ parte (v. c. ulcere) lacerans.
'Dolor lacerans in dorso.
'Effluvium auctum ex affectâ parte (v. c. ex ulcere pedum, e naribus in coryzâ chronicâ, ex urethrâ in blennorrhœa chronicâ.)
'Muci in coryzâ chronicâ in sanguineum mutatio.
'Sensus mordax in oculis, quasi a sale culinari insperso.
'Inappetentia ciborum.
'Debilitas, prostratio virium.
'Morositas.

*'Vires hujus remedii durant ultra dies quatuordecim.' *Ed.*

'Diarrhœa sine torminibus.
'Tormina.
'Incarceratio flatuum in hypochondriis.
'Agrypnia.
'Pruritus in cute.
'Sudor lenis nocturnus.' (P. 47.)

After this, Brassavola, Lange, Paschalius, Occo, Pareus, Vierus, Joach, Camerarius, and others, testify that cantharides will cause bloody urine, priapism, inflammation of the penis, &c. &c.

This work is certainly of some use, as well as a medical curiosity; and it may be consulted with advantage as an index of cases of poisoning occurring in the older writers. — *Med. Quar. Review.*

Dupuytren on Military Wounds. — The Baron commences by some remarks on the *Physicat Effects of Projectiles from Fire-arms*, the principal of which are as follows. When the gun has been discharged close to the wounded part, the opening by which the ball enters is smaller than that by which it makes its exit; but if at a distance, so that the ball is nearly spent, then the reverse will be observed. In the one case the powder will adhere to the wound, in the other, none will be found. The canal made by the ball in the former instance will be conical: hence the extreme difficulty of extracting it, when lodged in a bone, without the use of a trephine. In passing through a flat or spongy bone, it makes a clean hole, without splinters; but, in perforating a long bone, the wound is generally ragged, with splinters of bone sticking into the soft parts; at other times it fractures these bones, without further injury. When a ball strikes a convex part of the body obliquely, it not unfrequently takes a circuitous course, and escapes at a point opposite to its entrance: thus, it may strike the sternum, and make its exit near the spinous processes of the vertebræ, without perforating the cavity of the chest; so in the head, &c. If linen be loosely applied to the body, the ball will frequently push a large portion, like a funnel, before it, into the wound; but, if the linen be tightly strained, it will carry away only a piece of its own size. It is not an uncommon accident for the ball to be broken by striking against a bone, and for the two fragments to go in different directions; it may otherwise alter in shape, so as to render its extraction extremely difficult. Such are the chief physical effects of these projectiles themselves; but they may be complicated, by means of splinters of wood, portions of the dress or arms, driven before them. These complications, however, vary infinitely; and we have not space to follow the author through his disquisitions upon their

different consequences. We must likewise pass over the *Vital Effects of Gunshot Wounds;* and shall conclude this article by abridging Dupuytren's opinions with regard to *Amputation in Cases of Gunshot Wounds.*

A simple wound of the soft parts seldom requires the loss of the limb; only in cases where, from constitutional or other causes, traumatic gangrene is about to take place. Fractures of bones are the most common wounds requiring amputation, but here the surgeon must exercise some discretion. If the bone be not much shattered, and if the soft parts are not much bruised, and the constitution is tolerably tranquil, the patient, being treated as with a severe compound fracture, may perhaps retain his limb, especially if he be extremely young; but, if these favorable circumstances do not exist, recourse should be had to amputation. Of course, the chances are more in favor of a patient who is admitted at once into a civil hospital, than of him who is wounded and treated on a field of battle.

Wounds of the large joints, or vessels, if they cannot be secured, require the removal of the limb; as also very extensive lacerations of the soft parts, by the explosion of mortars, &c. Another circumstance must also be taken into consideration, viz. whether the patient has sufficient strength to bear up against a tedious suppuration; if not, this is sufficient reason for the operation.

As to the period at which the amputation should be performed Dupuytren agrees with all reasonable surgeons, that it is more successful when done within six or eight hours, than after inflammation has commenced: if, however, it should be delayed beyond that time, the surgeon should not wait till the patient's strength is exhausted; but, as soon as he perceives that his treatment will be unsuccessful in saving the limb, he should lose no time in removing it. The occurrence of hemorrhage or traumatic gangrene would only increase the necessity for instant operation.

Our author, in cases of amputation for gunshot wounds, recommends the attempt to heal the stump by the first intention, but he makes the reservation, that it can never be completely effected. The endeavor will, however, lessen the wound, which is to be healed by the slower process of granulation. He cautions surgeons to remember that the operation, after all precautions, will frequently prove fatal: he says that one patient dies out of six operated upon. — *Lond. Med. Quar. Review.*

Influence of the Moon. — A very uncommon effect of this attractive power is related by the learned Kirckringios. He knew a young gentlewoman whose beauty depended upon the lunar

force ; insomuch that at full moon she was plump and handsome, but in the decrease of the planet so wan and ill-favored, that she was ashamed to go abroad, till the return of the new moon gradually gave fullness to her face, and attraction to her charms. (*Observ. Anatomic.* 92.) If this seems strange, it is indeed no more than an influence of the same kind with that which the moon has always been observed to have upon shellfish, and some other living creatures ; for, as the old Latin poet Lucilius says,

> Luna alit ostrea, et implet echinos, muribu' fibras
> Et pecui addit. (*Apud A. Gellium*, lib. xx. c. 8.)

And after him Manilius :

> Si submersa fretis, concharum et carcere clausa,
> Ad lunæ motum variant animalia corpus.
> (*Astronomia*, lib. ii. ver. 93.

Mead; *Influence of Sun and Moon upon Human Bodies.* (Works, p. 186. Ed. 1762.) — *Ib.*

The pulse in Horses. — The state of the pulse is highly important in almost all diseases. Naturally, it beats about forty times in a minute. A few beats either below or above this standard need not be noticed, as it will vary even in health in different horses ; but when it comes to ascend to fifty, and to mount beyond this, it furnishes reason to suspect that the operations of the body are in some way or other disturbed. As regards its frequency, and in reference to the natural standard of forty, the pulse may be slow, or it may be quick. I have found the pulse myself as low as twenty-four : I have heard Mr. Sewell say, he has met with it not more than fourteen. — *Percivall's Hippopathology.*

'SCRAPS,' *for the year* 1835, By D. C. Johnston.

Mirth is a valuable adjuvant in the treatment of many diseases, and under favor of this circumstance, this humorous periodical is entitled to a notice from us, as an article of the Materia Medica. Moreover, one of the subjects in the present number, is very like an old acquaintance of this Magazine. If friend Johnston will look over our pages for the coming year, ten to one, he may get another 'hint,' and if he will follow up our matter-of-fact exposure of professional abuses and improprieties, with his satirical illustrations, we shall indulge a 'comfortable hope' of contributing to some desirable reformations.

MASSACHUSETTS MEDICAL SOCIETY.

At a meeting of the Counsellors of the Massachusetts Medical Society, held Oct. Ist, 1834, it was voted, That a committee be appointed to investigate the History of Intermittent Fever in this Commonwealth and throughout New-England.

With a view to accomplish the purposes for which they were appointed, the committee respectfully request from the members of the medical profession in New England information relating to the objects of their inquiry. In order to faeilitate as much as possible the communication of such information, the following questions are proposed, as embracing the points which it is especially intended to determine.

1. Whether intermittent fever have at any former period existed in any part of New England as an Endemic disease, (i. e. having its origin in the place where it has prevailed,) where it does not now exist; what was the kind of soil, the face of country, the state of cultivation and the geological character of the district where it prevailed.

2. If it formerly did and does not now exist: when did it disappear; what was the state of the country as to cultivation, agricultural improvements, &c. at the time of its disappearance, and was it connected with any known changes in the neighborhood; such as draining marshes, clearing away wood, &c.

3. Where does intermittent fever now exist as an Endemic in New England? Has it always been observed in such places as are now liable to it, or has it recently appeared there.

4. If it have recently appeared, in what places and through what extent of country has this been the case? What is the character of the country, and has its appearance been connected with any such changes in the neighborhood, as the stopping of water courses, raising ponds, flooding meadows, &c.

5. If it have made its appearance in any place, what was its character, Quotidian or Tertian, was it connected with, or did it pass into common or continued fever; did they prevail at the same time and place; what was their character?

6. How was the disease treated; what was its length; was it liable to recur; in what state of health did it leave the subjects of it. Was it followed by any such maladies as are commonly described as following intermittent fever.

7. Is there any probability, that in any case the subject of the disease have been exposed to its causes in some other place or part of the country at any period, whether longer or shorter, before it has made its appearance.

Gentlemen who favor the Committee with information are requested to state the kind of authority on which their statements rest, especially whether they are the result of personal observation, or have been derived from that of others, or from common report merely.

Communications may be addressed to the Corresponding Secretary of the Society, GEORGE HAYWARD, M. D. Boston.

RICHARD D. HAZELTINE,
JOHN WARE,
WILLIAM J. WALKER,
} Committee.

Publishers of Newspapers and of Literary, Medical and Scientific Periodicals are respectfully requested to republish the above circular.

MEDICAL MAGAZINE.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

MIASMATA, AND THE VAPOROUS EMANATIONS IN CONTAGIOUS TYPHUS.

From a Lecture delivered at the College of France,

BY F. MAGENDIE.

THE following portion of a Lecture on Miasmata and Contagion, from so high an authority as M. Magendie, cannot fail to be read with interest in this country, where such diverse opinions and warm disputes with regard to them have prevailed, and where, indeed, complete reconciliation and unanimity is not yet affected. Most practitioners of modern mode, who are accustomed to allow their patients as much of the free air of heaven as is consistent with their inactive, helpless state, will agree in the non-contagious character of ordinary typhus. While those who practised in days when cold water and fresh air were proscribed, may still find it difficult to dissuade themselves that it is not contagious. The former, or perhaps all, will assent to the miasmatic origin of yellow fever. But that it arises from the miasma of putrefying *animal* substances exclusively, or even principally, as M. Magendie would seem to teach, we think but few are prepared to admit. His

statement that the miasm from putrid fish possesses extraordinary virulence, is quite unfortunate, or at least is not well localized: for in America, it is customary to adduce in support of the innocuous nature of putrefying animal matter, the ordinary freedom from virulent disease of neighborhoods where the people breathe an atmosphere rendered almost intolerable by the stench of vast quantities of fish spread on the land as manure.

The unwholesome atmosphere which generally surrounds bogs, marshes, and other uncultivated places, will give you a familiar example of the fact mentioned in my last lecture respecting the effect of deleterious vapors on the lungs and skin; the emanations from animal and vegetable substances in a state of putrefaction give rise, as is well known, to various diseases of the most destructive kind.

These emanations are termed, in medical language, *miasmata;* for many years we possessed nothing but vague and uncertain ideas upon the nature of this agent, to which the most contradictory and ridiculous properties were assigned; but, latterly, we have acquired more correct and precise views of the subject; in fact, you may collect a quantity of this deleterious atmosphere or miasmatous exhalation, and, in a few hours, by the assistance of cold and other agents, you may condense the vapor, and obtain a considerable residuum of animal or vegetable matter, which has a tendency to run into putrefaction with the greatest rapidity. This has been done by several chemists, and the nature of miasmata thus perfectly demonstrated. You all know how unwholesome the wards of our hospitals become when typhus fever prevails in them, and when the patients are crowded together in great numbers. Under these circumstances, the wards become charged with an atmosphere of a most deleterious nature, and the physicians, attendants, and all who approach the sick-bed, run the greatest risk of being attacked by the disease. On this account hospital typhus has been generally regarded as a disease of a highly contagious nature; but I shall have occasion to lay before you presently, many facts which place the question altogether in a different point of view. In the meantime remark, that if you submit the air surrounding the bed of a patient attacked by (so called) *contagious typhus* to experiment, you can prove that it contains a deleterious matter similar to that

already alluded to. The vapors emanating from the patient may be condensed by the action of cold, into a liquid charged with animal matter of a highly putrid nature, and much more injurious than that procured from the exhalation of marshes.

Under other circumstances animal matter vaporizes in great quantities, and gives rise to disease of the most obstinate and fatal form in certain parts of America, in the neighborhood of low, partially cultivated localities, or where the atmosphere has been corrupted by shores, neglected markets, and filth of all kinds allowed to accumulate for a length of time, — these exhalations give birth to a malady which has produced in various quarters the most frightful mortality. I need scarcely mention to you the name of yellow fever, nor direct your attention to the peculiar circumstances under which that fatal disease is ordinarily developed. I would, therefore, lay it down as a general principle, that in all cases of the production or propagation of *yellow fever* or *hospital typhus* the atmosphere in which the affected individual resides is charged with putrid animal matter in the form of vapor.

This principle, Gentlemen, is not without its value in the practice of medicine; it enables us to distinguish diseases into those which are produced by miasmata, and those which are independent of that cause. On this principle, hospital typhus is totally distinguished from common typhus, occurring as the latter does in healthy situations, without any tendency to spread or affect those who approach individuals laboring under the disease. Why is hospital or jail typhus so fatal an affection? and why has it the appearance of being a disease highly contagious, while in reality it is far from being so in the strict meaning of the word? Because the place, in which the patients are assembled together is charged with deleterious miasmata, the air surrounding them is in fact poisoned by the animal exhalations, and all who come within the sphere of its influence are liable to be operated on in a greater or less degree. *Cholera*, on the contrary, though still more fatal than typhus fever, and apparently connected with certain localities of situation, never presented the least trace of miasma. The history of the disease, its mode of progress through different countries, and in all seasons of the year alike, finally, examination of the air contained in the wards where cholera patients have been crowded, leave no doubt on my mind that the cause of cholera is not a miasmatous exhalation. Turn your eyes now upon yellow fever, mark the contrast. Yellow fever s ia disease

strictly miasmatic ; it exists only in certain localities, in places favorable to the development of various exhalations of an injurious nature ; it devastates one quarter of a town, while the rest are habitually free from it. If an affected individual be transported to a distant and healthy situation, he does not carry the disease with him, and the inhabitant of a quarter in which yellow fever is, as I may say, domiciliated, knows very well that by getting into a steam-boat, and travelling a few miles from home, he leaves all danger behind him. The Americans tried this principle upon a grand scale during the prevalence of cholera, but without success ; they soon found it was in vain to travel from one locality to another in order to avoid the disease. It was either there before them, or did not long fail to arrive, pursuing that steady course which is one of the most remarkable points in the history of the disease. Cholera was proved not to depend on miasmata, like yellow fever and other diseases of that class, which are characterized by the circumstance of being confined to localities, and of not being transmissible to healthy situations where the developing cause does not exist.

But before we proceed further, we have to ask and answer a question on which the application of the present subject mainly depends, viz., Is it certain that animal substances in a state of putrefaction are so highly deleterious that the least respiration of air containing this matter may be productive of dangerous consequences ? I would answer this question in the affirmative, because I have seen the most severe accidents arise from the artificial introduction of putrid animal matter into the circulation of an animal, and, what is more to the present purpose, in some cases, besides the general symptoms of a dynamic, &c., the experiment has given rise to the vomiting of a dark colored fluid, exactly analogous to the black vomit which has been considered as peculiarly belonging to yellow fever.

This is a fact deserving some consideration, for it throws considerable light on the nature of yellow fever, and on the cause which produces that disease. If you take ten or twelve drops of a fluid containing animal matter in a high state of putridity, and inject it into the jugular vein of a dog, the animal soon presents some remarkable phenomena. In the first place he shows febrile symptoms characterized by excessive prostration ; the heart beats quickly, the respiration becomes very much accelerated, and at the same time the animal falls into a

state of weakness and prostration which is very striking; the muscular power fails, he lies down on the ground unable to stir or make any effort. But the most remarkable phenomenon of all is, that after a short time he is actually seized with the black vomit, identical in the nature of the matter evacuated with that which is thrown up by an individual laboring under yellow fever.

Thus, Gentlemen, we are enabled to produce in the amphitheatre effects analogous to those arising from yellow fever when it attacks the human body, and to create, at will, the most characteristic symptom of that disease, by introducing putrid animal matter into the circulation. Here is an animal on whom we have tried the experiment (a large dog was led into the amphitheatre,) but as yet no very remarkable effects have been produced. Perhaps the matter injected was not sufficiently putrid; it was taken from the remnant of some brains which I had for a long time at home, preserved in spirits.

And here I would remark to you, that the dangerous influence of the matter is indicated by the smell, as if nature wished to furnish us with a means of avoiding pernicious miasmata. The worse the matter swells the more dangerous it is; and hence putrid matter exhaled by fish in a state of decomposition, which as you all know, gives off a most abominable odor, is most fatal and injurious. The injected matter first acts on the intestinal canal; the animal exhibits symptoms of low fever, and is seized with a bilious purging; indeed you have the proof of this in the case before you, for the dog has just been affected in this manner *(laughter;)* he is also feeble, and in an hour or two will probably vomit a quantity of dark matter, which, when examined, you will find to be altered blood.

This, Gentlemen, is a most important fact, and shows how necessary it is to be aware that the membranous tissues are permeable to vapors, which enter the circulation through this channel, and produce deleterious or wholesome effects, according to their different natures and composition. The most striking experiment of this kind was made by chance some time ago on the human subject. An immense quantity of fish was thrown out on the quay in some town in America, on account, as well as I remember, of some dispute among the proprietors and the custom-house authorities; in a short time the matter begun to putrefy, and yellow fever of the most violent character was at once developed in the neighborhood. The snrrounding atmosphere was here charged with putrid exhala-

tions, which were taken into the circulation by the medium of the lungs, and gave rise to the same morbid phenomena as if the deleterious matter had been introduced directly by the veins.

It would appear from the history of disease in general, and from different experiments, that man is much more susceptible of infection by vapors than animals of a lower class. During the war in Spain, I made several experiments on this subject. I took a considerable quantity of stuff, arising from animal matter in a state of putridity, of which we always had abundance, and placed it in a tub, in which I enclosed animals of different kinds; they resisted the poisonous effects with a good deal of force; dogs confined in this situation did not present the same phenomena, as if a putrid liquid had been injected into the circulation; they lost all appetite, grew thin, and ultimately died, but I never witnessed the production of black vomit from this mode of poisoning.

This subject, Gentlemen, requires further investigation, and the repetition of many experiments which should be conducted with the utmost care and caution; for, in physiology, we may be easily led to draw false conclusions from our premises. The elements of error are numerous, and we have not the same facility for correcting our mistakes as in physical or chemical experiments.

The question on which I have now dwelt is applicable to many points of medicine; thus, it is now well known that typhus fever, though very fatal, is not a contagious disease; yet fifteen years ago, such was the prevailing opinion, and you would have been regarded as presumptuous, or extremely ignorant, if you were to have hazarded a doubt on the subject. Now-a-days we know very well how the disease is contracted; a friend, for example, goes into a typhus ward to see a sick patient; he approaches the bed, and remains for some time in the miasmatous atmosphere, taking in the poisonous vapor which exhales from the patient's body, at each inspiration; at last the vapor penetrates the membrane of the lungs, and he feels as if struck with something; he has, in fact, taken the disease — that is, the poisonous miasm has entered the circulation, and will shortly produce its characteristic effects; but this is quite different from the received idea of contagion.

Again, when typhus fever prevails to any extent in large establishments, the physicians and attendants are usually attacked by the disease; I have lost many friends from this

cause, and many of them have told me that as soon as they approached within a certain distance of the patient, they experienced some strange sensation, and were conscious of having contracted the malady. In these cases a single respiration of the concentrated miasm was sufficient to infect the individual.

The measures of Hygiene, which we should adopt, are easily deducible from the foregoing remarks: — If you would avoid contracting the disease, you must avoid respiring the poisonous vapor which surrounds the patient; and you may prevent its concentration; you may, to use a chemical phrase, so dilute the poison as to render it innocuous, by taking care to place only a few patients in the same chamber, and by adopting means to procure a free circulation of fresh air round the sick bed. This is a precept which agrees equally with our theory and with experience. Do not encumber your patients, and avoid as much as possible respiring the unwholesome vapors surrounding them.

On Hydrocele of the Neck, with Observations.

By James O'Beirne.

An article under this title appears in the Dublin Journal of Medical and Chemical Science for September. From the introductory remarks we learn, that a disease was described under this name by Professor Maunoir of Geneva nearly twenty years ago. His manuscript memoir was read at the Royal Institute of France in 1815, and afterwards transferred to the Academy of Natural Sciences, where the celebrated Baron Percy made a report upon it in 1817, highly unfavorable to the Professor's opinions and practice. In 1825, Professor Maunoir first published the memoir, with the report, and his most satisfactory defence, but still no notice of his memoir is to be found in any subsequent French or English work. The disease has been often observed without its true nature being known. We can now call to mind since reading the paper which bears a title at which we could not refrain from smiling, one case at least, where the sac was dissected out from the neck, and was

about the size of a hen's egg. He gives three cases of the disease which he has observed, illustrated by lithographic engravings, and four cases of Professor Maunoir. The Professor thus describes the disease.

The disease consists in the formation of serous cysts, commencing very small at some point of the side of the neck, and gradually increasing, for several years, to such a size as to occupy the whole of the front and one side of the neck, and seriously impede respiration, deglutition, and speech.

The tumor so formed conveys to the touch a distinct sense of fluctuation, and contains a fluid of either a limpid, a reddish, or a dark coffee color, and coagulable by heat. In the great majority of instances, it exists independently of any enlargement of the thyroid gland; and, in his fourth case, it was situated behind the angle of the lower jaw, and, of course, quite removed from this gland. But he has, in two instances observed the contrary; and the second of his cases, in which the gland, enlarged and indurated, formed one eighth of the whole tumor, is an example of this complication.

With respect to the treatment of the disease, the learned Professor's opinions and practice are these — 'Although,' he says, 'there may be great affinity between encysted tumors in the neck and hydrocele of the tunica vaginalis, yet it appears to me that in hydrocele of the neck, the cyst is more dense, and more difficult to be excited to adhesive inflammation. Accordingly, its treatment should not be directed by analogy, aad it is not proper to have recourse to the cure by injection, although it seems, at first view, to be best. I wished to try it, and have been obliged to renounce it as a bad plan, and one not free from danger. An injection which is not very stimulating, will effect nothing, or almost nothing, on a very thick, and, in general, an old cyst. If a very active injection be employed, it will cause great pain, and give rise to very alarming spasmodic symptoms. Moreover, I have to observe, that sometimes enlargement of the thyroid gland complicates the treatment. In that case, the object is merely to propose adhesion of the walls of the sac; it will be necessary to employ a mode of cure by which we may succeed at the same time in resolving this gland, when it projects into the tumor, as I have seen in two patients.' As to laying open the tumor by incisions, as practised by Heister, or extirpation of the whole or of only a part of the cyst, he condemns these operations as being serious, difficult, and calculated to prolong a cure, by producing a large

wound, and one of a kind very slow in cicatrizing. In short, the treatment which he has been led to adopt and recommend consists in puncturing the tumor, and, after evacuating its contents, passing a seton through it, in the direction of its longest diameter. By this plan, a fresh accumulation of fluid is prevented, the adhesion of the walls of the cyst is insured, and the thyroid gland, when it happens to be enlarged, is gradually reduced to its natural size.

Four cases of this disease have occurred to Dr. O'Beirne within a year or two, which, with four cases by Prof. Maunoir, are given in his paper, and three of them are illustrated by lithographic engravings. The following will exemplify the disease and general practice.

Case. — A washer-woman named Martin, aged 49, still menstruating, with a spherical tumor on the front and left side of the neck, as large as an infant's head, presented the first example of the disease that the Professor had seen, read or heard of. Originally this tumor had been very small, but increased in quite an insensible manner. It did not force her head to incline to the left, but to the right side, and formed a sort of cushion for her head to rest upon. She had taken burnt sponge, and many other boasted remedies for goitre, but without any benefit. Difficulty of breathing and swallowing came on, and increased in proportion to the growth of the tumor. One day, while washing at the river side, she threw up a very great quantity of blood, fainted, and was supposed for some moments to be dead. The hæmoptysis and oppression continuing, and the swelling being felt to contain a fluid, a trochar was passed into the most prominent and fluctuating part of the tumor, and gave exit to a pint and a half of a deep brown liquid, which coagulated by the application of heat. Complete relief ensued. On the following day, the swelling had returned to its former size; but fluctuation was less manifest, for infiltration had taken place between the tumor and the skin.

At the end of fifteen days this infiltration had disappeared, and the cyst was punctured by a trochar. and, after being emptied, filled with warm red wine and a small portion of alcohol. This injection, although retained but for a few moments, caused great pain and suffering. Swelling, redness, trismus, and increasing pain, on the following day: leeches, poultices, aperient medicines, and opium, ordered. An abscess, external to the cyst,

opened and treated in the ordinary way, until it healed. A third puncture made into the upper part of the cyst by a sharp-pointed bistoury, and giving exit to as considerable a quantity of fluid as at the second. A button-pointed probe was then introduced into the opening, and passed until it became prominent at the most inferior part of the tumor; the point of the probe then cut upon, and the instrument withdrawn, leaving in its place a single thread. This thread frequently renewed; no accumulation of fluid. A seton of ravelled linen passed, and caused abundant suppuration. This seton continued for six weeks, and then removed by the patient, on account of interfering with her ordinary occupations. Both openings fistulous for some months; the upper first closed; and in the year 1813, when she was 63 years of age, her neck was very slender, and her health robust.

Case II. — Mary Kelly, aged 60, healthy, and of temperate habits, admitted on the 17th of May, 1833, into the Anglesey Hospital and Dispensary, under the care of Mr. Hayden, on account of a large tumor which she has in the neck. She states that, about thirteen years ago, she perceived, for the first time, a round, hard, moveable tumor, about the size of a pea, and free from pain or discoloration, situated in the inferior posterior triangle of the neck, and immediately above the greatest convexity of the left clavicle. In the course of a month after, it enlarged to the size of an almond, and became much harder. From that time it encreased gradually and imperceptibly, until about two months ago, when its growth became, and has since continued to be very rapid. About three months ago, she had a cough so violent as to deprive her of rest for five weeks, at the end of which time she began to bleed profusely from the nose and mouth. The bleeding continued for three days, coming on regularly every fourth hour, and amounted to about three pints; but it completely removed her cough. She never had any bleeding from the nose or mouth either before or since that time. During the last fortnight she has suffered much from an indescribable kind of pain, passing occasionally across her back, and down her right arm as far as the elbow joint; the left arm not being in the least affected.

The tumor is now of considerable size; extending from the clavicle (the anterior half of which it covers) to the buccinator and other muscles of the face, and, in fact, occupying the front, and nearly the whole of the left side of the neck. Its shape is somewhat pyramidal, the base being above and the apex below. It conveys a distinct sense of fluctuation, but as if the fluid were

contained in a number of distinct cysts. There is no discoloration of its integuments, but the external jugular vein is more distended than usual. No pulsation is perceptible in any part of the swelling. Respiration and deglutition are not seriously affected. She has more difficulty in swallowing fluids than liquids, and even the latter are sometimes arrested in their progress, but never permanently.

The patient having consented, the operation was immediately performed by Mr. Hayden, assisted by Dr. O'Beirne, Consulting Surgeon to the institution, and in the following manner. The skin covering the highest point of the tumor being pinched into a transverse fold, this fold was divided so as to leave a longitudinal wound about an inch long. Some scattered fibres of the platysma were next divided, until the sac came fairly into view. The sac was then freely punctured with a lancet, and a quantity of dark, coffee-colored fluid discharged. While this fluid was escaping, a blunt probe, armed with a skein of silk, was passed into the opening, and its point made prominent at the most depending part of the tumor. Incisions were then made at this point through the skin and into the sac; the probe is withdrawn, and the silk left in the usual manner of passing a seton. The tumor being now completely emptied, the thyroid gland was carefully examined, and found quite free from enlargement, hardness, or any other morbid condition perceptible to the eye or touch. On examining the sac also, at its upper part, and separating it from the parts beneath, which was easily effected, another but much smaller cyst was clearly seen and felt at a considerable depth, and situated so directly over the carotids, that it was not considered safe to puncture it. Feeling weak, she was placed in bed, and cold cloths were applied over the seat of the tumor.

From this time (May 18,) for a week, she suffered severely from the constitutional disturbance. 25th. Tumor distended with pus; seton removed, and a considerable quantity of pus discharged. July 10th. Has improved progressively, and in all respects, since last report. There is now a small sinus containing a small quantity of matter, and extending downwards from the inferior opening. This sinus laid open; tumor so much diminished that the neck is nearly of its natural size and form. Both the superior and inferior openings are closed. The cervical glands remain indolently enlarged, notwithstanding the application of small blisters, camphorated mercurial ointment, ointment of hydriodate of potass, and various other agents. Discharged in perfect health.

Boston Dispensary.

Report of Cases occurring in the District of Wards 5, 6, *and* 7, *from October* 1*st*, 1833, *to October* 1*st*, 1834.

By J. Roby, M. D., *Visiting Physician.*

Whole number of cases admitted, 380. Discharged *well*, 340; *relieved* 4; *not relieved* 2; *removed* 6; *died* 14; *remaining under treatment* 14.

The following tables exhibit the number of cases of each disease, and other particulars.

In the first, for brevity, a generic nomenclature has been adopted, and vulgar names sometimes substituted for scientific. In the second, 'Bostonian' includes all born in Boston of American parents; 'American,' natives of the United States; and 'Hibernico-American,' persons born in the United States of Irish parents. In both tables, *cases* not *patients* are spoken of, the same patient being admitted and discharged more than once; of course the former exceed the latter.

TABLE I.

Diseases.		Diseases.	
Abortion,	2	Fever, Access of,	15
Abscess,	3	,, Continued,	33
Aphthæ,	1	,, Infantile Remittent,	1
Asthma,	2	,, Scarlet,	4
Anasarca,	1	Fracture of Clavicle,	1
Brain, Organic Disease of	1	,, Rib,	1
Burn,	2	,, Arm,	1
Cancer of the Breast,	1	Gastrodynia,	3
Catarrh,	9	Headache,	6
Chlorosis,	1	Heart, Organic Disease of,	2
Cholera, Common	4	Hemorrhage from Bladder,	1
,, Infantum	6	,, from Lungs,	1
Colic	7	,, from Nose,	1
Constipation,	5	,, from Uterus,	2
Contusion,	8	Hooping Cough,	6
Convulsions, Infantile	2	Hydrocephalus,	1
Cough,	8	Hysteria,	4
Cramp,	2	Inflammation of Ancle,	1
Delirium Tremens,	9	,, of Eyes,	8
Dentition, Difficult	4	,, of Ears,	4
Diarrhœa,	19	,, of Brain,	4
Disease of the Skin,	3	,, of Bronchi, (Acute)	27
Dropsy,	2	,, of ,, (Chronic)	7
Dysentery,	3	,, of Peritoneum,	1
Dyspepsia,	10	,, of Pleura,	2
Dysmenorrhœa,	1	,, of Knee Joint,	2
Eczema,	4	,, of Liver,	1

Diseases.		Diseases.	
Inflammation of Lungs,	10	Porrigo,	2
,, of Stomach,	2	Paralysis,	1
Injury of Eye,	1	Prolapsus Uteri,	1
,, of Hand,	1	Rheumatism Acute,	9
,, of Wrist,	1	,, Chronic,	6
Leucorrhœa,	2	Scald Head,	1
Lumbago,	1	Sore Throat,	14
Menses, Suppression of,	3	Urticaria,	2
,, Cessation of,	1	Ulcer,	1
Mumps,	2	Vaccination,	26
Neuralgia of Face,	1	Vomiting,	1
Odontalgia,	2	Whitlow,	1
Parturition,	15	Worms,	1
Pemphigus,	1	Wound of Foot,	2
Phthisis,	4	,, of Lip,	1
Pleuralgia,	4	Total	380

TABLE II.

Country.		Habits.		Duration of Disease when admitted.	
Bostonian	130	Temperate	251	1st day of illness	84
American	149	Moderate Drinkers	44	Between 1st and 4th	152
Hibernico-American	47	Drunkards	40	,, 4th and 7th	44
English	13	Children of Intemperate Parents	45	Beyond 7th	100
Irish	37		380		380
Scotch	2				
German	2				
	380				

No epidemic prevailed in the District during the past year. Fever, which furnished the most numerous cases, was pretty equally distributed over the whole term. 'Access of Fever' denotes those cases in which, after exposure, febrile excitement developes itself, but subsides under the operation of an emetic or cathartic. Affections of the thoracic viscera were not above the common average: of the alimentary canal, fewer than in the preceding year, particularly during the summer months. Perhaps the number of deaths is large; not so if habits, mode of life and other circumstances are considered; thus of the whole number (fourteen) five were in an advanced state of incurable disease when admitted; in seven, application for medical aid was deferred so long as to render it of no avail, and only two were seen from the outset of their disease.

The following cases, though occurring in dispensary practice, were not confined to the past year.

I. *Repeated Miscarriage.* — Dec. 23d, 1832. S. M. aged 33, has been twice married. By first husband had two children, (the eldest being now fourteen years of age) both born at full time, nothing extraordinary occurring previous or subsequent to delivery. Has lived with present husband eleven years, during which period has had ten miscarriages, most of them at the seventh, none beyond the eighth month of pregnancy; the last happened about three weeks since. The child is expelled in a putrid state, a slight touch being sufficient to detach the cuticle. Delivery generally takes place ten days or a fortnight after she has ceased to perceive the motions of the fœtus; thinks that she can fix the exact day of its death. General health, except during the term of utero-gestation, very good; menstrual function in interval, natural. Denies ever having had syphilis.

The husband states that two years previous to his marriage, he became infected with venereal disease, was treated for it and, as he supposed, completely cured. He has never had any suspicious eruption, nor any other symptom which could be traced to a syphilitic source.

In the fifth volume of the 'Transactions of the Association of Fellows and Licentiates of the King and Queen's College of Physicians in Ireland,' there is a paper entitled '*Observations on a Species of Premature Labor to which Pregnant Women are not unfrequently liable. By an Experienced Physician.*' This species of miscarriage is thus described. 'A lady apparently healthy, conceives and carries her child in the usual way, till about the seventh month of pregnancy she by degrees ceases to perceive the motions of her child, and in about a fortnight after this event she falls in labor, and a fœtus, evidently dead for some time, is expelled. This often happens three, four, five, and even six times in succession, or perhaps more frequently, to the same patient and about the same period of pregnancy. The first time such accident happens, there has generally been some cause to weaken the patient during gestation, but in the subsequent instances it rarely happens that any adequate cause can be assigned. Women who have borne healthy children, have sometimes fallen into this pernicious habit, and continued in it for a length of time, and afterwards had living children. In such cases it evidently happens from the fœtus dying in utero.' The writer also remarks, that 'by the imprudence of husbands a venereal taint has been sometimes acquired, which demanded the use of mer-

cury, and which had been insufficiently employed. The wives of such are particularly liable to the disease in question, although no unequivocal venereal symptom shall exist.' Dr. Beatty of the Dublin Lying in Hospital has likewise noticed this species of miscarriage as depending sometimes on a venereal taint, and successfully treated by the exhibition of mercury.

Admitting that the communication of syphilis to the fœtus in utero may take place, (which John Hunter denied) is it probable that in the case related the frequent miscarriages were owing to this cause: taking into consideration the length of time which had elapsed since the husband was infected, and the non-appearance of the slightest trace of syphilitic disease in the wife?

II. *Lateral Depression of the Parietes of the Chest.* — In the fifth volume of the Repertoired, Anatomie Generale, M. Dupuytren has published a short memoir on 'Lateral Depression of the Parietes of the Chest in young Children.' A few cases have recently come under my observation.

Case 1. — F. A. J. aged eight years, always enjoyed good health till her fourth year, when she had severe pulmonic disease, from which she recovered very slowly, never perfectly regaining her former vigor. Has since been much annoyed by hard, dry cough, urgent dyspnœa after exertion, and severe pulmonary affections from slight exposure. The respiration and circulation are accelerated by ascending stairs or by joining in the sports of her age, nor can she with comfort perform the lightest domestic services. During sleep, which is unquiet and disturbed by dreams, she 'rattles much in the throat,' frequently awaking in great distress.

Upon examination of chest, a deviation from the natural form is very obvious. The ribs are flatter, and the connecting cartilages of the ribs and sternum more prominent than usual, the sternum itself being somewhat depressed. This change increases the antero-posterior and vertical, but diminishes the lateral diameter of the chest. No distortion of the spinal column can be detected, nor is there any enlargement of the tonsils or deafness. The pulse, when patient is at rest, is not more frequent than usual in children of the same age: the respiration, modified by the bronchial affection which she suffers almost constantly, may be heard over the whole chest: sounds of heart louder, but impulse not greater than usual. Appetite variable, not good in general, nor is the body well nourished. In this case the lung attack during measles, which was unusually severe, is supposed

by the mother to be the cause of the deformity, the chest having been previously of a perfectly natural appearance.

Case 2. — H. S. aged two years. In this patient, the deformity exists in a greater degree, and is productive of more serious ill consequences than in the former. The mother observed the chest to be deformed, and the breathing of the child labored from its birth. It has always been extremely feeble, having constant cough aggravated by exposure, with occasional paroxysms of almost suffocating dyspnœa. The action of the heart is usually tumultuous, being readily perceived through the parietes of the chest, and attracting the attention of the parents and friends. Active exercise increases the dyspnœa to such an extent as to oblige the patient to abstain from it almost entirely, nor can he even walk any considerable distance without inconvenience. The malformation is of the same kind as in the preceding case, the prominence in front depending on the protrusion of the sternal extremities and cartilages of the ribs. General appearance of the child extremely bad, its pale countenance, fretful expression, unstable gait, and hurried respiration indicating the existence of some serious obstacle to the full developement of its physical powers. Its extreme impatience of examination precluded any auscultic exploration of the chest. No distortion of the spine: tonsils not enlarged.

Case 3. — E. D. aged twelve years, has always been a feeble child, delicate in appearance, and incapable of undergoing fatigue. About five years since, the deformity of the thorax, which is now quite striking, was first noticed. No disease of the lungs existed at that time nor previously, nor was there any cause to which the distortion could be attributed. She has most of the symptoms detailed in the preceding cases, as dyspnœa on exertion, palpitation of the heart, pre-disposition to pulmonary affections, together with slight deafness, but no enlargement of the tonsils. Spinal column of a natural form.

Case 4. — J. D., a brother of the first patient, aged six years. Deformity first noticed a year since. He is affected with all the symptoms before referred to, has slight lateral distortion of spine, is somewhat deaf, but no enlargement of tonsils: deafness supposed by mother to be owing to 'ulcers in the head' during infancy. He never joins in the active sports of other children, cannot ascend heights without panting, and while walking is frequently obliged to sit down and rest.

Case 5. — F. S., aged 17 years, one of the most remarkable cases of lateral deformity I have yet noticed. His mother first observed the peculiar conformation of the thorax when about six months old. From that time to the present, the deformity has been constantly increasing, accompanied by enlargement of the tonsils to double the natural size, obstructing the respiration, and rendering the voice thick and indistinct. Is extremely susceptible of cold, and never exposes himself in damp weather without suffering an attack of bronchial inflammation : cannot bear fatigue, ascend stairs, run, or even walk fast without breathlessness: is not deaf. He has been subject to attacks of colica pictonum, and is now recovering from paralysis of wrists consequent upon his last illness. An elder brother has the same deformity of chest in a slighter degree, with enlarged tonsils, but no deafness.

Case 6. — O. A., aged five years. Perfectly well till fifteen months old, when he had inflammation of the lungs. After recovery ankles enlarged, for which salt water bathing, friction and other remedies were employed. Has not suffered from acute disease since, but mother has observed that slight exercise fatigues him, and his general appearance indicates a feeble constitution. When seen, he had suffered from long continued cough, dry and husky. Not detecting any disease of the lungs by the stethoscope, I was induced to strip him, and at first sight discovered the lateral depression : this had never been noticed by parents previously, but was immediately remarked on directing their attention to it. He has more incurvation of the ribs than was observed in the other patients, but no deafness nor enlargement of the tonsils.

M. Dupuytren has most frequently seen this unnatural formation of the chest in the ' children of scrofulous, ricketty parents, residing in low, damp and cold situations : in those who are badly clothed and ill fed. In children affected with this deformity, the sternum protrudes like a keel, the vertebral column projects behind, and the ribs are not merely flattened, but actually bent inwards, nearly as if, while they were quite soft and capable of taking any form, the sides of the patient had been pressed towards each other, as pigeons are suffocated by passing the fingers under the wings and compressing the sides of the thorax. By this change in the natural proportions of the chest the diameters are changed also, as if nature endeavored to compensate for the loss in one direction, by an increase in another. This compensation, however, being imperfect, the

deformity never fails to produce great oppression and shortness of breathing, often amounting to anxiety and even anguish. In the new born infant there is great difficulty in sucking, and suffocation is produced by a continued effort, so that the babe quits the breast after a few minutes with screaming. At a more advanced stage the voice is affected, becoming short, interrupted and, as it were, jerking. These symptoms are aggravated every time that the patient takes the least exercise, such as going up and down stairs, or even speaking with animation. In this respect the patients much resemble persons laboring under disease of the heart, but an attentive examination will show that these disorders and irregularities are in proportion to the derangement of the respiration alone, and are in fact, effects produced by it.'

M. Dupuytren has also remarked, that 'this deformity is almost always accompanied by a swelling of the tonsils. Pulmonary catarrh is a frequent and formidable complication. In many of the patients laboring under this malformation, an imperfect development of the skeleton was observed, the bones of the head being open at a time when they ought to have been closed, the ends of the long bones being enlarged and soft in their texture, the dentition backward.' The treatment recommended by him consists in the exhibition of mild tonics conjoined with exercise of the muscles of the chest, and above all, a persevering application of pressure upon the most prominent point of the sternum.

In addition to the memoir just referred to, there is a paper by Mr. Coulson, in the London Medical Gazette, (vol. iv. p. 69,) confirming the accuracy of the description given by Dupuytren, and attesting the merits of the plan recommended for its cure. Mr. Coulson also speaks of enlarged tonsils as an accompaniment, together with slight deafness, and an alteration in the natural direction of the spinal column, either a lateral curvature, which is most common, or a projection of the spine backwards. A weak and languid state of the circulation, preventing a full and perfect development of the system, is assigned by him as the usual cause of this distressing deformity.

Dr. Copland (Med. Dict. Art. Deformities of the Chest,) notices this malformation. 'Not a week passes,' he observes, 'without cases of this contraction being presented at the Infirmary for Children: and although sometimes a congenital deformity, it has appeared to me very frequently to be greatly increased, if not altogether occasioned, subsequently to birth,

by the very common practice among nurses, of lifting the child by pressing the palms of the hands in the sides of the chest, immediately under the arm pits.' In the general description and treatment he coincides with the writers above-mentioned.

Cases reported to the Boston Society for Medical Improvement.

In the preceding volume of the Magazine, we gave some account of this Society, and several extracts from their records. The Society still continues in successful operation, and much valuable and interesting matter has accumulated in their books. From this, with the permission of the Society, it is our intention to draw, from time to time. The following cases were reported at the meeting held November 24th.

Dr. Fisher exhibited to the Society the lungs of a male child aged three and a half years, an examination of whose body he made yesterday. The child was feeble from birth, and when three months old weighed but four and a half pounds. He was first seen by Dr. Fisher about a year and a half ago. He was then laboring under great dyspnœa and oppression of the chest — was considerably emaciated — features swollen — lips pale and rather livid. In the lower third of the right lung the respiration was indistinct, and the sound from percussion was flat — remainder of lungs natural. The impulse and sound of the heart were more evident on the right than on the left side of the sternum. Blisters were applied on the right lung, and kept open for a considerable time, which with other treatment, greatly relieved the dyspnœa and other distressing symptoms. About ten days ago Dr. Fisher was called to the child again, when he found it extremely emaciated, and troubled with a slight hacking cough, which came on only a day or two before. His bowels were very loose, and had been for a long time, and the dejections were liquid and profuse up to the day of his death. On percussing the chest after death, the whole of the left side of it gave out a clear and natural sound — as also did the upper portion of the right side. But the sound

elicited by percussing the lower third, or half of this side of the thorax, was dull and flat.

On raising the sternum, the heart presented itself beneath it, inclining to the right side, but it exhibited no unusual appearances. The pericardium was unnaturally thickened and opaque, and exhibited marks of old inflammation and adhesions. The left lung contained two or three small semitransparent tubercles, but except for these, it was quite healthy. The right cavity of the chest, however, presented much disease. The pleura were almost universally adherent, and so firmly was the lower lobe of the lung united with the ribs, that it was broken down, or rather an abscess which it contained was broken into, in removing it. The apex and superior portion of the upper lobe of this lung was quite free from disease — two or three small tubercles only were discovered in it. The lower third of this lobe, however, contained many tubercles in a crude state. The middle lobe was also tuberculous, and to a greater degree than the lower part of the upper lobe throughout — at its upper posterior part a large irregular cavity was found that would contain from one to two ounces of fluid. Its inner surface was red, and to it adhered two masses of whitish tuberculous matter of the size of small filberts. Two or three bronchi of the second size opened into it. At the base of the lung was a cellular abscess of the size of a small nutmeg, filled with pus of a peculiar gelatiniform consistence. Its parietes were exceedingly transparent.

The bronchial glands were excessively tuberculous—but none of them had suppurated. In the small intestines existed numerous ulcerations, all transverse to the course of the intestine. The greater proportion of these ulcerations were confined to the ileum, and but few of them encroached upon Peyer's glands.

Extensive patches of superficial ulcerations were found in the cœcum and surrounding the colon. The mesenteric glands were all greatly enlarged and tuberculous ; none of them were in a state of suppuration.

In this case we have another of those rare instances of tuberculous disease having commenced in, and being principally confined to, the *lower portion* of the lung.

Dr. Channing presented for the Society's cabinet, a kidney taken from a female in middle life, whose history is as follows. About three years since, after severe exertion, complained of pain in uterine region, which she compared to premonitory

pains of menstruation, attended by some dysuria. Laxative and demulcent medicines were directed, and no further complaint was made for a year afterwards, when she again complained of pains in the pelvis, dysuria, and leucorrhœa. At this time Dr. Channing was consulted by Dr. Doane, who had been her previous attendant. The physical signs were noticed, and examinations were made *per vaginam* and *per rectum*, and the difficulty was judged to arise from organic disease of uterus. Various means of cure were used without relief. About six months since, she was attacked with pulmonary disease, of which she died. From the commencement of this attack all pains and other difficulties about the pelvis ceased.

Autopsy. Extensive tuberculous disease of the lungs — uterus to every appearance in its natural and healthy state — conglomerate glands throughout the ileum ulcerated. On examination of the kidney of the side *opposite* to that where the pain was complained of, it was found rather small, extremely pale, with many white opaque points, supposed to be tubercles — these seen also in the cut edges of the kidney: pelvis greatly enlarged, and lined with a coating of opaque, whitish, friable, unorganized substance, like what is found in a tuberculous cavity, about a line in thickness: — three or four large cavities communicated with this, which, from their relative situation, appeared to be the infundibula, diseased like the pelvis. About one half of the organ was destroyed, the disease in some parts approaching quite to its circumference. The internal surface of the ureter was coated throughout like the pelvis. The mucous surface of the bladder was extensively ulcerated, but only two or three tubercles were found. It would seem that the ureter was impervious, from the fact, that no pus had ever been discovered in the urine; and because, when the kidney was cut into, the pus issued out in a jet, as if it had been under pressure.

No suspicion of any such disease existed during life. In Carswell's splendid work, 'Illustrations of the Elementary Forms of Disease,' he gives a figure of a tuberculous kidney, which so nearly represents the one above described, that we might suppose it to be that from which the original drawing was taken: and so far as it goes, it supports his theory, that tuberculous matter is a deposit upon mucous surfaces.

Dr. J. B. S. Jackson lately examined a child about ten years of age, who died of phthisis, in which the internal surface of the uterus, and one of the Fallopian tubes, was lined with

tuberculous matter, exactly as representedby Carswell in another figure of the same plate.

Dr. Roby reported a case of fever in which there was intermission of the pulse at every third beat for fourteen days. He observed that Dr. Smith, in his work on Fever, had set this down as indicative, with other symptoms, of speedy convalescence; and asked if this phenomenon had been often observed. In reply to Dr. Roby, several cases were mentioned, all in confirmation of the remark.

Dr. Ware communicated a case of remarkable frequency of the pulse. The patient was a female, nursing her fourth or fifth child, and of about thirty years of age; of a light complexion and thin, slight figure. She had labored for a few years past under an aggravated degree of dyspepsia, for which she had latterly been riding on horseback. Her pulse were usually about eightyfour in the minute, but she has for a year or two been subject to turns of what she calls palpitation, when they have been very much accelerated, though never to so great a degree, nor for so long a time as on the present occasion.

Nov. 17th, she had been more free from dyspeptic symptoms than usual for some time, and had gained much strength, when she was frightened by an unruly horse, and was immediately attacked with palpitation, or a sense of rapid and violent beating at the heart. This occurred in the forenoon. I saw her in the afternoon, found her with a feeble pulse of two hundred, as counted at the wrist and by the ear at the heart. She was considerably alarmed by the attack, but the respiration was perfectly easy and natural, not at all hurried, and the circulation and heat of the skin were unaltered. In the night she was seized with vomiting and considerable general uneasiness, which continued through the greater part of the 18th. The pulsations of the heart were two hundred and twentyeight, hardly perceptible at the wrist, and only capable of being counted, at the heart. The respiration and capillary circulation, except so far as affected by vomiting, continued good.

Nov. 19th. Her night had been bad. She had now no sensation of palpitation at the heart, only a tired and uneasy feeling across the chest, and through the centre of the chest to the back. The pulse were two hundred and forty; beats not distinct at the wrist, but quite so at the heart. Countenance of good expression, but pale, except lips, which retained their color. On the 20th, there was no alteration, the pulse almost extinct in the arm. On the 21st, the pulse were two hundred

and forty, a little more obvious at the wrist, but the countenance was thinner and more shrunk, the skin cool, and a little slimy sweat about the wrist and hands. In the evening, the pulse had fallen to two hundred, but on the morning of the 22d had risen to two hundred and thirtytwo, and were again more indistinct. Her general aspect was however better through the day, and at seven in the evening her pulse were but two hundred, and she felt better. At ten I was called to her suddenly, and informed that a great change had taken place. I found her, as she expressed herself, quite relieved of the difficulty in the action of the heart. She was very easy and cheerful, with a good, moderately full pulse at the wrist, beating only ninetysix. She told me that she had slept through the evening, that she had dreamed I was there and was pressing on her heart, or doing something to it; that she then awoke with a sharp pain through the region of the heart, with a pain in the face, and some flushing and fullness of blood about it, but a relief of the palpitation. There was no return of the peculiar symptom of the case, but the patient has been very slow in regaining her previous state of health.

No remedies were used which were supposed to have any decided effect on the symptoms. Prussic acid and Tr. Digitalis were administered, but with no obvious effect. The chest was blistered over the heart, and rest was produced by opium, of which not less than four or five grains were taken every night.

Every precaution was taken in this case against any deception with regard to the number of beats of the pulse; and when possible, they were always counted both at the wrist and the heart.

The remarkable features in this case, in which it differs indeed from any which I have ever seen recorded, are the very great frequency of the pulse; the length of time during which this great frequency continued, whilst at the same time the action of the heart seemed hardly sufficient to send the blood through the arteries with any sensible impulse, though the capillary circulation continued perfectly good, and the respiration unembarrassed; and the singular suddenness with which this state of the circulation ceased, and the natural action of the heart was restored.

COLLECTANEA.

Wounds of the Radial Artery.

From a Clinical Lecture by Sir Charles Bell.

In opening the lecture, Sir Charles remarks upon the alarming nature of wounds of arteries, the necessity of prompt action, the simplicity of the practice when rightly understood, and the horrors which are consequent upon ignorance of anatomy, timid conduct or ill advised operations. He observed to the pupils that distressing cases of wounded arteries did not come before them, because that young men now were anatomists and diligent students, and not only knew what to do, but how and when to act. He then read several cases from the surgeon's book, from which we select the following.

Puncture of the Radial Artery. — 'Charles Bartlett, æt. 21, a shoe-maker, came to the surgery, with a wound almost exactly in the middle of the fleshy part of the fore-arm, about half an inch in length, rather towards the ulnar side of the arm, apparently not in the direction of either artery. The lips were nearly adherent, but on pressing on the sides of the cut a little clotted blood escaped: it appeared, however, of slight importance. The patient was told to go home, to poultice the wound for a night, and return the next day to have it properly dressed. However, about eleven o'clock at night he returned, having lost four or five ounces of blood; but the hæmorrhage had been stopped by a tight bandage. We now questioned him more particularly about the history of this accident, and it appeared that he had received the wound three days ago, by a sharp-pointed knife having been thrown at him in a *lark*' — (I hope this is the patient's expression, not the taste of the narrator); 'that he had lost much blood at the time, and had gone to a chemist's, who strapped up the wound and stopped it; that on the two following days the bleeding had burst out afresh, and been stopped in a similar manner; and that the chemist now told him there was a large vessel wounded, which it would be necessary to cut down upon and tie. On undoing the bandage, a small stream of arterial blood flowed from the wound; the wound was enlarged by a longitudinal incision; the blood appeared now to come from above and below, in a more considerable stream, and seemed as if it came from the interosseal artery, yet no wound ran between the bones. Some coagulated blood was now pressed out, from a deep part of the wound next the radius. The blood then came in large quantities, and evidently from the bottom of this wound,

which led in a direction towards the radial artery ; it was easily stopped by pressure on this artery, above and below the part wounded. The external edge of the wound being more than an inch from the artery, it was found necessary to make a regular dissection for the vessel. He was therefore put to bed, to await the visit of the surgeon next day, a compress being placed on the artery above and below the wound, which completely commanded the hæmorrhage.

'When the surgeon saw him, he would scarcely believe that it was the radial artery, and not the ulnar artery, that was wounded ; the latter seemed, from the direction of the wound, so much the more likely to have been injured. The compresses were removed, but no blood flowed. He desired that the arm should be kept raised, a cold lotion applied, and that he should be sent for if the hæmorrhage returned. None appeared till four o'clock, when it again burst out. The tourniquet was put on, and the surgeon sent for. He having convinced himself that it came from the radial artery, cut directly down upon the artery, and connected his incision with the wound. The two flaps thus formed were turned back, and after a little careful dissection, the artery was exposed, and the nature of the wound in it proved just such as was anticipated. It was punctured in such a manner as to divide one-third of the circumference, and the retraction of the elastic coat, and the contraction of the muscular fibres, gave it exactly the appearance of having had a piece cut out. The tourniquet was now removed, and the vessel compressed above and below. The artery was divided at the puncture, and both ends tied at the distance of a few lines from the ends. The parts near the wound had been too much exposed and separated from the surrounding parts by the dissection and the injection of the cellular membrane. The wound was dressed ; in five or six days both ligatures came away, and the wound soon healed by granulation.'

1. This is a case coming the nearest of all to such as I have described, where mischief has been occasioned by imperfect compression ; and I offer you the following remarks upon it : —

'First, "the blood came from above and below." That to you, as anatomists, will not appear remarkable, when you recollect the free inosculations between the radial and ulnar arteries, through the superficial and deep-seated palmar arches : but it has been imagined necessary that the anatomist should trace the inosculations, to account for the blood returning so freely from the lower part of the artery of a limb. Not at all ; in the flesh of the thigh, the arm, and indeed every where, there are sufficient small vessels — vessels which are exceedingly active, capable of high excitement and increased activity — to account for the flow of blood from the lower orifice : which, indeed, takes

place, in certain circumstances, from all arteries, wherever divided. It has been stated in some of our books, which, in other respects, are excellent authority, that it is only necessary to take up an artery, in the arm for example, above the wounded part; but in this case you perceive that there was an immediate necessity for tying the artery above and below the wound. Even if the lower extremity does not bleed, yet, if you take up the artery only above, you are almost certain to be called to a secondary hæmorrhage; and there is such a welling of blood from the wound, that you have difficulty in deciding whether it comes from the failure of your ligature or from the lower part of the artery, and you are under the necessity of putting down a compress most probably within the wound, thereby occasioning great inflammation, tumefaction, and a tedious cure; all of which may be avoided by taking up first one end of the artery and then the other, so that there is nothing left in the wound but thread, and no particular excitement.

'2. My next observation is, that when an artery is punctured and does not bleed, as was the case here, it is exactly what you are to expect. You are called to a patient who has suffered suddenly by hæmorrhage — perhaps blanched by loss of blood; you ascertain by this circumstance that a vessel has been actually wounded, but now it does not bleed. You are thrown off your guard, you go away, and you receive a second hurried message that there is another hæmorrhage. What then is to be done, when, from the circumstances of the case, the direction of the wound, the quantity of blood lost, you think the artery must have been struck, and yet the vessel does not bleed? One thing you ought always to try — and that is, to compress below the orifice, that is to say, more remote from the heart; and if the vessel have been only wounded in the side, or punctured, you will in all probability, find that the hæmorrhage recurs — that the blood being prevented from going down the artery freely, passes out by the wound.

'3. You must also consider whether there is anything in the position of the limb. If a man be engaged in a struggle, and the point of the knife enters through certain muscles, the moment the arm is changed in position all these surfaces shift and lie over the wound, and the tract of the wound becomes oblique and irregular; so that a coagulum is found in the interstices of the part and around the artery. It is well sometimes to study the position of the part wounded — to place the limb in that position by which you ascertain the tract of the wound through the several parts, and leave the passage free for the exit of the blood.

'4. There is another circumstance, not to be explained on mechanical principles. An artery bleeding stops from exhaustion,

and after a time the hæmorrhage again returns. I do not pretend to explain it, but such is the fact, that there is an impulse, an excited action, in the artery to resume the circulation; and sometimes this is marked by pain in the part. I have sat watching a patient, and known when to bestir myself and put my finger on the compress, from the pain striking down the limb; the pain producing an increased activity of the vessels, and that being the harbinger of a new breaking out of the hæmorrhage. Thus it seems to be a law, that a vessel having exhausted itself, shall after a time recover and resume its hæmorrhagic action. These are the circumstances that throw you off your guard, and sometimes induce you to leave a patient when he is in imminent danger of a return of hæmorrhage.

'5. The next observation upon this case is very important. You will observe that the incision to find the vessel was made in connexion with the wound. That practice is quite correct, because we know very well that we have cases on record where the surgeon has trusted entirely to his knowledge of anatomy, and has said, "I see where the artery has been wounded, I will cut down upon it;" whereas he has cut down upon the side of the vessel not wounded, and therefore has not discovered the puncture, and much unnecessary dissection, unnecessary pain, and destruction of the parts, have been the consequence. Trust to anatomy as much as you may, dissect for the artery according to your knowledge of the parts, but take the assistance of the wound itself. Either pass a probe, or your finger, through the wound, and make the incision to communicate with it; so that when the artery bleeds, it will pour the blood into the wound formed by the incision, and you will have less difficulty in ascertaining the point whence it proceeds.

'6. The next observation is upon a very important and curious point: the artery appeared as if a piece were cut out. This explains why an artery does not heal. When an artery is struck, it contracts in one way, and retracts in the other; that is to say, the elasticity of the parts causes retraction, and muscular action induces contraction, so that the wound gapes; and it has no tendency to heal, because the edges are turned out. This I have seen in a way in which I could not be mistaken. When the artery of the arm has been wounded with the point of a lancet, I have seen it appear as if it were torn largely; and so the narrator states here, that it appeared "as if a portion had been cut out of the artery."

'The artery was divided, and both ends taken up with a tenaculum; that is the easiest and the best way. By this means you avoid diving with the aneurismal needle, and the danger of passing it across the ulnar nerve, if it be the ulnar artery on which you are operating. If the vessel be only wounded at the

side, I think the best plan is to divide it altogether, to pick up one end and tie it neatly, and then pick up the other.'

Division of the Radial Artery. — '"Ann Twyford, æt. 28, came to the surgery on the 6th October, with the blood dripping fast through the rags that had been hastily wrapped round a wound of the fore-arm. The wound had been received by the hand slipping off the bar of the window, in the act of pulling it down, and so thrust through the glass. It was about ten minutes after the accident that she walked into the hospital. She had lost much blood, was getting faint, and the pulse was running very rapidly. The arm was grasped above, and the bleeding stopped. The flexor carpi radialis, and the palmaris longus, and part of the superficial flexor digitorum, had been divided. The outer end of the wound terminated just over the course of the radial artery, so that it was necessary to prolong it a little to get at the vessel. The lower end of the artery was the first to bleed when the pressure was removed. After it had been secured, the upper end, which had retracted most, was picked out and tied likewise. The ligatures were slightly twisted, and the wound dressed as described in Hayward's case. She was sent to bed, and had some opening medicine.

'"The 8th and 9th. — Wound dressed; looks well; ligatures twisted.

'"The 10th. — One of the ligatures came away.

'"The 11th. — The other ligature came away, this being the fourth day after the accident.

'"The 23d. — She is still in the house, but would be better at home, as she seems to suffer from the air of the hospital, having twice had diarrhœa and a blush around the wound."

'1. Connect these two circumstances together: the artery is divided by a piece of glass, and you observe the wound is bleeding all the time, and the blood is oozing through the compress of cloths. This is the character of the wound, in opposition to the last case, where the artery had been more bruised, and confirms the observation I made, that the slighter the injury to the artery, the more freely it bleeds. This marks the distinction in regard to different kinds of wounds — lacerated, bruised, and incised. You are aware that a limb may be carried off, and no blood lost — that is, if an artery be drawn out and injured, so that a coagulum of blood is formed in it. I remember, when I first came to town, being in the society of some of the most eminent men, and the conversation turned upon this very subject. I took the opportunity of remarking, "You are considering the matter too mechanically; if an artery be torn it stops bleeding.

If I amputate a breast, and the vessel spouts out, and I take hold of it with my forceps, turn it round, and twitch it, it ceases to bleed; nay, if I even take hold of it with my forceps, and squeeze it hard, the same effect is produced." "Oh, then," said my friends, "the reason is this: when an artery is torn, the inner coat being more brittle than the others, is divided into shreds, and they act as valves, so that the bleeding is stopped." That was undoubtedly an answer to my assertion, but it did not convince me; and I went down to the dissecting room, exposed the radial artery, put a strong probe under it, and tore it asunder. I then opened it, and examined it particularly, and found that although the coats had been torn, no such laceration of the inner coat as converted the shreds into valves had taken place; therefore my first position was a correct one. It is not a mechanical cause, but an effect upon the living property. You destroy the life of the vessel, or injure it to that degree, that it no longer exercises its influence in preserving the blood liquid, and it signifies not whether you twist, tear, or bruise the artery, the blood ceases to flow from it. When the principle of surgery is fairly laid down, and established in the pupil's mind, there is this happy effect, that he is not at once moved to wonder and carried away by new facts, such as this new method of twisting arteries instead of tying them.

'2. Now here is the point much talked about at the present day — the torsion of arteries. There are none of my old pupils but must know what this torsion means. It does not mean that any mechanical change has taken place on the tube, whereby the blood is stopped; but that all injuries, whether from the presence of a compress, or of a ligature, or the death by gangrene, tend directly to produce this result — to cause the formation of a clot, in consequence of the relation established between the liquid condition of the blood and the healthy and natural influence of the arterial coats being destroyed.

'3. One remark more on the necessity of twisting the ligatures. In several of these cases the ligatures were twisted; and observe what that means. If you take up an artery, separate the ligature, and cut off the ends near the knot, leaving only one end, you cannot twist it, you must wait for the process of nature throwing it off. You may have observed from a late operation of cutting off the ligature from an artery, that it is not always easily performed, especially when there is only one thread.

'My practice has ever been, not to cut off one end of the ligature. If the ligature be left quite free in the wound, the separate threads may be entangled among the granulations, and so retained for too long a time; but if you take the two ends, make them parallel, twist them, and lay them down, they do not interfere with the granulations, and are not entangled. On the fifth

day you have an opportunity of twisting them a little more; and from the third to the fifth day they come away without the necessity of pulling upon them. The first object is not to allow the threads to be connected with the granulations; the second is to have an opportunity, on the third or fourth day, of tightening the knot without pulling; whereas, if there be but one ligature, the only means of taking it away is by pulling, and you can easily conceive what may happen.' — *Med. Gazette.*

Rabies not communicable by bitten Animals. By M. Augustin Capello. — 'In the *Archives Générales de Médecine*, July, 1834, there is an analysis of two treatises on rabies by the above-named gentleman, in which he maintains that rabies, after its first transmission from one animal to another (and without an exception so far as the genus *canis* is concerned), loses its venomous property, ceases to be a contagious disease, and cannot be further communicated.'

In confirmation of this he gives nine cases in which all the men and brutes bitten by animals *spontaneously* rabid became affected, while not one of the multitudes bitten by dogs in whom the disease was developed by communication, or in the second remove, became rabid.

'Dr. Capello concludes, from these cases, not only that rabies is not communicated beyond the second person affected, but that its nature is not contagious. "Contagious diseases," says he, "are reproduced many times — nay, almost to infinity, and everywhere; but this is not the case with rabies. The former, either by means of a latent germ, or under atmospheric influence, appear and disappear at certain determined periods: rabies, on the contrary, knows nothing of these epochs, but develops itself at most irregular and uncertain times. Contagious affections, whether of the system generally, or affecting the integument alone, produce invariably some eruption or efflorescence, by means of which we can determine the true character of the disease; rabies, on the other hand, is accompanied by no eruption or discoloration of the skin. They assume characters more or less intense, by reason of certain meteorological changes: rabies, on the contrary, pursues its undeviating course, whatever be the circumstances, the season, the climate, the weather. Contagious diseases gradually lose much of their intensity of character, and some of them have disappeared from the surface of the earth: rabies, from the moment it was first described to the present hour, has uniformly retained the same character. They, however fearful may be their character, spare a few of the individuals which they attack; but rabies, whether spontaneous or communicated, is always mortal. Finally, contagious

diseases propagate themselves with so much the more facility in proportion as they are fatal, and are transmitted not only by immediate contact, but by very circuitous means; rabies, although uniformly fatal, is transmitted only through the medium of a solution of continuity.

'"A difference so marked," adds the author, "makes me more and more doubt the contagiousness of rabies. *Rabies canina* seems to me to form *the intermediate link which unites the chain of contagions with that of poisons*, properly so called."

'The author concludes his first memoir, with making some observations on the etiology of rabies. Compelled to admit some special cause of the existence of spontaneous rabies, he thus proceeds: —"The reflections I have made on the development of rabies in the Tiburtine country, induce me, among other causes described by authors, to recognise one exclusively, which I think will be the same wherever essential rabies manifests itself. It is neither rage, nor hot food, nor putrid meat, nor confinement, nor excessive fatigue, nor suppressed perspiration, nor variety of temperature, but simply *venereal desire existing to excess and not satisfied.* This circumstance seems to me to be the absolute cause of rabies."' —*Veterinarian, Nov. Lancet.*

Proportion of Drops to Minims. —In the Lancet we find the following table, showing the difference in the comparative proportion of the drop and the minim. It shows us how necessary it is that a uniform method of indicating doses should be adopted. In reading medical reports we are not apt to take into consideration this difference, and accordingly are liable to be led into serious mistakes as to the power and doses of medicines, as we are in the habit of pursuing the one or the other scale.

	Drops.		Minims.
Pure water	35	are required to be equal to	60
Muriatic acid	60		60
Liquor potassæ	70		30
Tinctura kino	50		30
Vinum antimonialis	50		60
Tinctura digitalis	80		60
Tinct. iodine	56		30
Acid. prussici	50		60
Tinct. opii	70		30
Acid. sulph. dilut.	45		60
Æther. rectif.	65		30

Hydro-Oxide of Iron as an antidote to Arsenic. —Mr. Orton of London, has lately made some experiments on rabbits with

a view to testing the efficacy of this preparation, which some other experiments that were not long since published, would lead us to think was a sovereign antidote to the destructive effects of arsenic. His experiments, however, furnish a different result, and so far from even delaying its fatal effects, the rabbit which took arsenic without the iron survived longer than those that took both in conjunction. He also endeavors to show that death from poisoning by arsenic is, ultimately, the result of asphyxia — that it commences in the lungs rather than in the circulating or cerebral system. — *Lancet.*

M. Sanson has been again appointed to supply the place of Baron Depuytren at the Hotel Dieu, the health of the Baron being still in a very precarious condition. — *Lancet.*

Arrest of Hæmorrhage from Leechbites. — A new plan was lately had recourse to by Mr. Oliver of London, in a case which resisted all other means, which was by coating over the triangular wound to some extent with liquid Plaster of Paris. This very quickly and effectually stopped the hæmorrhage. — *Lancet.*

Interesting facts in Anatomy. — The following cases were lately reported to the Anatomical Society of Paris. M. Cruveilhier presented a human heart which he had succeeded in dividing into two moieties; thus realizing in the human subject what is observed in certain animals.

M. St. Ives presented an example of atrophy of one of the hemispheres of the brain, which had scarcely one third of the volume of the opposite one. The hemisphere of the cerebellum of the opposite side had equally atrophied. The patient, thirty-six years of age, was epileptic, and for the last few years had become idiotic.

M. Ribes presented the heart of a man sixty years of age, in which the two auricles communicated freely together by a large aperture, without any change having been produced in the color of the skin. — *Lancet.*

Hall on Diagnosis. — A reprint from the second London edition of Dr Marshall Hall's Elements of Diagnosis, has just been issued by Messrs. Peabody & Co., of New York. We propose soon to introduce the work more fully to the notice of our readers. In the meantime, as it is almost the only work in our language on this important subject, we earnestly trust that it may be in the hands of every *member of the profession.*

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

HYDROSTATIC TEST.

THE following directions for the conduct of this experiment, on the results of which the most important decisions frequently depend, are extracted from a Lecture on Infanticide, by Dr. Graham, Professor of Forensic Medicine in the Westminster School of Medicine.

It is in the works of Galen that we first meet with the hydrostatic test of the lungs swimming or sinking in water as a proof of the child being born alive.

To make this experiment, the lungs are to be removed from the cavity of the chest, along with the heart, having previously passed a ligature around the larger vessels. The trachea, or wind-pipe, should be divided close to its insertion into the lungs, and having wiped away with a sponge whatever blood may be smeared over these viscera, they should be placed gently in a vessel full of water, the vessel should be at least a foot in depth, so that the column of water may be proportioned to the bulk, as well as to the weight of the lungs and the heart, and thus able to support them, in case they should swim on its surface. It is necessary that the water should be clean and clear, and not dirty or holding anything in solution, as salt or saline substances, which might increase its density, hence river water is preferable to well water. In respect to temperature, it ought not to be hot, because that

would increase the dilatation of the lungs, and thus promote their swimming, especially if there was any tendency towards putrefaction. Neither should it be at the freezing point, for that by contracting the lungs, might expel a portion of air which they contained. In short the temperature ought not to be above 60° or under 45° ; but I am inclined to think it is sufficient should the temperature be that of the atmosphere or of the child's body.

The lungs, with the heart, being, as I have mentioned, placed in the water, we must attentively notice whether they sink or swim, whether they sink quickly or slowly, or whether any part of the lungs seems to sink with difficulty, or whether they stop or not in the middle of the vessel.

Afterwards, the heart along with the pericardium is to be separated from the lungs, and the same experiment repeated with the lungs only. Here it is of importance to observe, whether, by changing the situation of the lungs in the water, or by placing uppermost that which was downwards in the water, they sink more readily or more slowly, or whether one part swims constantly and is only dragged beneath the water by the weight of the others. This part ought to be particularly marked and noticed.

Each lobe of the lungs should equally be submitted to this experiment, in order to ascertain whether each is affected in the same manner, or if one lobe swims whilst the other sinks to the bottom, and whether, as generally is the case, it is the right lung which swims. Afterwards, the experiment should be repeated with each lobe cut into several pieces, to ascertain not merely whether they swim, but whether some pieces may not swim. In performing this experiment it is highly necessary to keep separate the pieces of the right lung from those of the left. After having submitted these pieces of the lungs to this hydrostatic test, each piece should be pressed between the fingers under the water to observe if any bubbles of air rise to the surface ; and if, after having thus pressed them, they still continue to swim, or if they fall to the bottom of the water. Whilst dividing the lungs into pieces, you should pay attention, when cutting through the parenchymatous substance, whether there is any crepitation, or whether it appears compact, whether it offers any pathological appearance whatever, and whether the vessels which penetrate it contain much or little blood.

In addition to this hydrostatic test, it has been proposed to ascertain by the increased *weight* of the lungs after respiration

whether the child was born alive. About fifty years ago, Ploucquet believed that he had discovered the exact relative weight of the lungs to the body, which he asserts to be as one to seventy if the fœtus had not inspired, and as two to seventy if respiration had taken place. To ascertain this important fact he had only made three experiments. Afterwards, Messrs. Schmidt and Chaussieur, totally unconnected with each other, the one at Vienna, and the other at Paris, made several hundred experiments, which not only proved the relative weight of the lungs and the body to be altogether uncertain and variable, but that the proportions laid down by Ploucquet were sometimes even reversed. But, notwithstanding the great uncertainty of this test, it would be wrong to reject it altogether, but to use it amongst others as giving an approximative value which in some cases might be useful.

Daniel, about the year 1780, published another method, which has its foundation on two well known principles of hydrostatics; first, that if a solid body is immersed in a fluid, it displaces as much of that fluid as is equal to the space occupied by its bulk; secondly, if a solid body is placed in a fluid of less specific gravity than itself, it loses in its own weight the weight of the volume of fluid displaced, which is equal in bulk to the solid body, and the weight of the fluid is increased in the same proportion. Daniel proposed to ascertain numerically the bulk of the lungs, then to weigh them in the air and in water. After having separated the lungs from the heart, as before-mentioned, they were suspended at the end of a delicate balance in a state of equilibrium, and then immersed in a graduated vessel filled with water and sufficiently deep; the bulk of water displaced is equal to the bulk of the lungs. If the lungs belonged to a fœtus which had breathed, and therefore could not sink, they were to be placed in a basket of silver wire, of which the bulk is known, so as to make a proportionate deduction from the quantity of water displaced. Thus, suppose we take the weight of the lungs of a still-born fœtus as one hundred in the open air, they will lose but a small portion of their weight when weighed in water, since their bulk is but small, we may suppose they will then weigh only seventy. If the lungs of an infant which has breathed weigh as two hundred in the open air, they will lose a much more considerable portion of their weight when weighed in water, since they are of a much greater bulk, and consequently displace a much larger quantity of water, we may suppose they will then weigh

only one hundred and forty. If, on the other hand, the lungs of a still-born fœtus have been inflated, we may suppose their weight in the open air to be as ninetyeight (for it is a remarkable fact, that the lungs of a still-born fœtus weigh invariably heavier before inflation than afterwards,) they will lose in the water as much as those which have been dilated by respiration, since their bulk is the same, their weight will then be only as thirtyeight; from whence it will follow that the difference of weight in the air and in the water will be in the following proportions:—

For the lungs of a still-born fœtus as 30.

For those of a fœtus which has breathed as 60.

For those of one which has been inflated always 60.

From these data it would be easy to construct tables which would give the weight of the lungs in air and in water, and at once ascertain whether they belonged to a still-born fœtus, or to one which had breathed, or to one of which the lungs had been inflated.

This process is founded on the principles of physics, which are incontestably true, the immutable laws of nature; but unfortunately the bulk and weight of the lungs vary so much, that no certain result can be obtained; in addition to which, the relative numbers are altogether incorrect, and the necessary tables, for the application of the rules, have never been made out, so that, in the actual state of science, it is utterly impossible to have recourse to such a method.

Dr. Brent, of Vienna, has proposed a somewhat similar method of ascertaining this important point. This consists in having a cylindrical vessel, not of an arbitrary or uncertain, but of a standard, measure, three inches in diameter, and twelve inches in depth, to be placed on a frame, which, by means of a screw, might be at all times made perfectly level. Into this two pounds of distilled water are to be introduced, the height of which is to be marked with a circular line; from this circle are to be drawn three vertical lines, marked from left to right with the Roman numerals of vij., viij., and ix. to correspond with the uterine ages of seven, eight, or nine months. Each of these lines is to be subdivided into two equal parts, marked from left to right with the letters F for female, and M for male. The lungs of six fœtuses are then to be introduced, three male and three female, delivered on the seventh, eighth, and nine months of pregnancy. It must be ascertained that respiration has not taken place. The experiment is

then to be conducted in the following manner: the change in the height of the water is to be marked by transverse lines on each column, and these lines to be distinguished by a Zero (o,) indicating there has been no respiration. The next process is to be conducted in the same manner with six other similar lungs of male and female fœtuses, of seven, eight and nine months, where the respiration has been imperfect' and each column to be marked in the same manner as before,'with the initial letter I as *imperfect.* A third experiment is then to be instituted, similar to the preceding ones, in which respiration has been complete, the transverse lines to be marked with the letter C, signifying 'complete.' In all these experiments the lungs are not to be separated from the heart. I will not detain you by entering more at length into the utility of this instrument, which, however perfect in itself, yet as a standard rule to go by, is exposed to precisely the same objections as in the other tests proposed by Ploucquet and Daniel, namely, that fœtuses of the same age and same sex vary both in bulk and weight, and, like the tests, can only be used as an approximating test, therefore of but little value.

Endermic Medication.

In a lecture delivered by Magendie, and published in the *Lancet*, we find that he performed an experiment before the whole of his class, demonstrating that as long as the epidermis is in a sound and healthy state, cutaneous absorption does not take place, unless friction be employed. He placed with the glass tube a few drops of prussic acid on the integuments of a rabbit, and the poison did not produce any appreciable effect. This is at variance with the experiments of others. M. Emmett tells us, that he found the essential oil of bitter almonds, applied to the uninjured skin of a rabbit, produce the usual symptoms, and death; and, he adds, that the peculiar odor of the poison was very perceptible in the deep-seated muscles of the back. The absorption of lead, in whatever form it comes into contact with the skin, will produce colic, or the paralysing effects which it causes when taken internally, without

any apparent action upon, or destruction of, the epidermis. Arsenic when applied to the skin of the human subject, may produce all the ordinary symptoms which attend its internal administration, and, indeed, it will act with equal violence and rapidity; the stomach will exhibit the same signs of inflammation. Mercury will also cause its peculiar effects when applied to the skin. Corrosive sublimate has been known to excite, through the sound skin, an action as violent as through the alimentary canal; salivation, and even death, have been known to follow its application. Vapors can be transmitted through the skin; and Magendie lately demonstrated the fact to his class. He enclosed a rabbit in a large glass, the head remaining outside; the vapor of the concentrated acid was introduced into the glass, and the effects were manifest in about two minutes and a half; it died as quickly as if the poison had been placed on the skin or tongue. This led to an idea, that a portion may have escaped from the bottle, and been introduced into the system by the lungs.

M. Nysten found that tetanus and death were the result of leaving sulphuretted hydrogen gas for some time in contact with the skin; and Buchner on one occasion remarked, that whilst preparing cyanogen gas, the forefinger, which was exposed to the bubbles as they escaped, became suddenly benumed, and that this effect was attended with a singular feeling of pressure and contraction in the joints of the thumb and elbow. We must, at any rate, all feel convinced, that substances, if in contact for any length of time with the epidermis, and more especially when aided either by animal or artificial heat, will be imbibed or absorbed. Some of them may act by mechanical destruction of the epidermis, or by some alteration in its structure. There are, besides, certain diseased states of the skin, in which absorption takes place very rapidly; thus, an infusion of tobacco applied to the head for the cure of tinea capitis has been known to produce all the bad effects which have resulted from the injudicious administration of tobacco.

Few medicines have been more fairly tried as an iatraleptic, in France, than digitalis in the cure of dropsy, and it has answered the most sanguine expectations that had been formed of its success. Dr. Chrestien, to whom we are most indebted for his experiments, has given us a fair narration of the cases which were successfully treated, and those in which it has failed. He is borne out in his practice by M. Cros Rogery, de St. Geniez, by Bernard de Beziers, by Blavet de Montbozin,

by Rouchy de Montpelier, and Archbold Aspold. Under M. Rogery's treatment by the friction with digitalis, a case of dropsy of the abdomen, which followed upon a repelled eruption, was cured; under Dr. Chrestien, dropsy, the sequela of scarlatina, in a boy of five years of age, disappeared; and dropsies consequent on visceral inflammation, and on splenitis after intermittent fever, have yielded to friction upon the hypogastrium with tincture of digitalis, three times in the course of the day. The tincture is prepared by macerating for a quarter of an hour an ounce of the leaves in three of alcohol. The method employed by Brera, which was the first introduced, and was therefore somewhat rude, consisted in macerating the digitalis in saliva, and then applying it by friction to the abdomen. In the only cases (two in number) in which I have had an opportunity of seeing it employed, I cannot say that I have seen any permanent benefit; but they have not been cases in which a favorable result could be fairly expected, as they have been desperate cases, in which all other remedies had failed. In one of these, which I have reason to believe is caused by an aneurism of the cœliac artery, and where the effusion is most rapid after the operation of paracentesis, the kidneys have lost almost all power of secretion; but, during the first two days of friction with the tincture of digitalis, prepared according to Dr. Chrestien's formula, they were evidently stimulated into some action, but soon returned to their previous torpid state.

The atropa belladonna has been tried as an iatraleptic, by Dr. Gouvion and M. Carre, in the most painful cases of neuralgia; and in rheumatism it has been found eminently successful, when its extract has been rubbed upon the abdomen, upon the sternum, or the dorsal vertebræ. In cases where, during labor, spasmodic contraction of the neck of the uterus has resisted the use of the lancet, Mad. la Chapelle says that the extract of belladona, assisted by warm baths and emollient fomentations, rubbed upon the region of the uterus, have answered the most sanguine wishes of the accoucheur. In the reduction of hernia, it has likewise been of great and important service; and also in retention of urine occasioned by muscular spasms about the neck of the bladder. M. Chevalier has published some interesting cases of spasmodic stricture cured by a bougie, on which belladona was put. Castor oil rubbed over the abdomen produces the same effect as if taken internally, and more especially if aided by the use of the warm bath.

Obstinate constipation has yielded to this remedy; and where such violent and constant sickness has been present as to preclude the possibility of the internal administration of the oil, it has produced all its good effects, without adding to the distressing state in which the stomach is found. I have seen by these means an action produced upon the bowels within a quarter of an hour after the friction had been employed, immediately on the patient leaving a bath of the temperature of 98°, where calomel, jalap, neutral salts, and lavements, had failed to relieve the intestinal canal, and where constant vomiting had commenced, and all idea of internal remedies had necessarily been abandoned. Croton oil likewise produces a complete relief of the contents of the bowels, when employed in a similar manner, and more particularly when combined with castor oil, as its general effects, when employed alone externally, are the production of a number of small red pimples, which become pustules resembling those of the small-pox, or those which are produced by tartar emetic; and experiments have been made upon upwards of thirty patients, which prove its efficacy as a counter-irritant. If four or five drops are applied by friction to the abdomen, combined with an ounce of oil of sweet almonds, at the end of from thirty to fifty hours the pustules are developed, which continue to increase for four or five days, and then dry up, or the skin becomes covered with scabs, which desquamate slowly. That similar effects are produced by tartarised antimony, said to have been introduced by Jenner, others by Hanway, and others by Autenrieth, formed into an ointment, is so well known and so generally employed, with the greatest success in this country, that it is quite unnecessary to dwell upon it.

Camphor has been very highly recommended as an external application by M. Malgaigne. He has, in several cases of erysipelas, used the powder of camphor with the greatest success. He has also tried it with some success in cerebral affections; he advises it to be employed with some moisture, so as to produce, by evaporation, a long continued and intense cold, and in this way it supplies the place of ice; in this form he has also used it in peritonitis, in which it alleviated the heat which is so much complained of. In hemorrhages he has also found its employment of the greatest value; he considers it to act as the volatile oils, or as either by evaporation, and thinks it the most certain and most powerful of refrigerants. A case has lately appeared in one of the French journals, in which it

cured a case of dumbness, consequent on paralysis, when applied by friction upon the upper part of the skull-cap. The powers of veratria have been lately the subject of examination in this country, and an essay has been published on its merits.

The chloride of gold and sodium have been successfully employed by Chrestien and by Puche, both as antysyphilitics and as antimercurials.

Iodine has fully borne out the expectations that had been formed of its power to discuss anomalous tumors, and glandular enlargements. The dueto ioduret of mercury has been used in a mild form, 15 grs. to ʒij. of lard, and xx. drops of essense of bergamot, by M. Biett, in various cutaneous eruptions, but in glandular enlargements he has applied a more caustic preparation, namely, a drachm to an ʒj. of oil of almonds, this is partly absorbed and partly desiccated. M. Maury has seen two cases of a sudden salivation come on two hours after its application. On the third or fourth employment of this remedy to indolent scrofulous swellings, pain and inflammation are produced, and absorption and diminution of the engorgements become perceptible. In some instances this is accompanied by fever, colic, and diarrhœa, but these seldom prove in any way alarming. The deuto-ioduret of mercury has been found serviceable in similar cases. The cyanuret of potash has relieved the pain in neuralgia, and proved an effectual remedy. Dr. Short has had occasion to speak in most favorable terms of the marchantia hemispherica employed as a poultice in the cure of dropsy. Opium and its constituent morphine have been successfully employed for the relief of various painful disorders.

An instance, in which its external application proved injurious, as recorded by Dr. Chrestien, translated from the *Journal de Chimie Médicale*, vol. vii. : — A child, two months old, very nearly perished in consequence of a cerate, containing 15 drops of laudanum, having been kept for 24 hours on a slight excoriation, produced by a fold of the skin. When the cause of the illness was discovered, it had been for some hours almost completely insensible, with a slow obscure pulse, and occasional convulsions. It also appears from the following instance, that, in certain diseased states of the integuments, it may prove fatal. A soldier, affected with erysipelas of the leg, had a linseed poultice applied, which his surgeon ordered to be sprinkled with 15 drops of laudanum ; next morning the

patient was found in a state of deep sopor, and affected with convulsive twitches of the muscles of the face and limbs, and in no long time he expired. His soporose state turned the surgeon's attention to the poultice, which he found colored yellow and smelling strongly of opium, and, on removing it, found that it was completely soaked with laudanum, which the attendant had carelessly poured on it to the extent of an ounce. The patient died notwithstanding all the remedies which his state called for; and the viscera were found quite healthy, but in many places the blood had a strong odor of opium.

Endermic medicine consists in the removal of the epidermis by such means as cannot produce any structural change in the subjacent tissue, and then the application of a remedial agent to the surface thus denuded. Various are the modes which have been employed, to expose the part on which remedies are to act; the most common practice is to apply a blister of cantharides; others prefer liquid ammonia. Boiling water has been tried, but it changes the natural structure of the skin; phosphorus has a similar effect: various other vesications have been employed, but they have been generally found to produce some irritation of the exposed surface, by which means the transmission of blood through the capillary vessels has been impeded, and thus the expected influence has been lost; the epidermis should be cut with a pair of scissors, and beneath it is to be introduced the remedial agent: if it is an insoluble substance it is to be sprinkled on the exposed surface; if it is a fluid it may be applied by moistening a small piece of lint with it. The seton is another mode by which it may be introduced, but great care and caution are requisite. Magendie gives us an instance of its bad effects in an old curé, who was poisoned in this manner by the introduction of a morsel of stychnine into a seton. The effects, in many instances, are exhibited in a very brief space of time, and the rapidity with which they are absorbed is such as to demand the greatest attention, more particularly as very minute doses will operate very readily, so much so, that very serious results have followed the application of arsensic and other remedies to denuded surfaces.

The French adopt the following plan: — Where an instantaneous blister is necessary, cut a piece of cotton, or linen, or of paper, of the size and shape for which it may be required; immerse this in spirits of wine, in strong brandy, or in eau de Cologne, lay it on the surface to be blistered, wiping the edges so that none of the fluid may moisten the surrounding parts;

apply a lighted candle rapidly over the whole surface, that it may all be burnt immediately. The ignition is exceedingly quick, and the cuticle will be found separable from the subjacent cutis.

Quinine, as an endermic remedy, has been tried with great success in the cure of intermittent fever. M. Martin published in the *Archives Generales*, an essay on this subject. He found that thus introduced into the system, even in very small quantities, it arrested the progress of the disease. M. Lambert next tried it, and succeeded, and the practice has now become general. If a blister be applied to one of the lower extremities, and when the skin be sufficiently raised, a very small quantity of the sulphate of quinine be applied, in about ten minutes a sensation of gentle heat will be perceived in the limb, ascending to the back, and gradually diffused over the whole system. The hot fit comes on before its usual period, and the whole of the paroxysm is shortened. Even the introduction of ten grains has been found sufficient to arrest the progress of an ague. Care must be taken to reduce the quinine to a very fine powder, and to incorporate it with simple cerate, or some greasy matter; for without this a high degree of irritation will be produced. Dr. Stokes tells us, that one of the most severe and troublesome forms of ulceration he had witnessed for a long time, occurred in a case in which quinine had been applied to a blistered surface. Over the whole extent of a skin to which it had been applied, numerous ulcerations took place, which resisted, for the space of six weeks, every attempt to heal them. It appears that quinine is one of the most valuable of the endermic remedies, for it can be introduced where gastric irritation prevents its internal administration; it acts more quickly than through the stomach, and small quantities only are required.

Some of the narcotic medicines have been employed most beneficially in the endermic way. M. Lesieur, who published a treatise upon the 'Nouvelle Medication par la voie de la Peau,' relates seventeen cases in which he tried the acetate of morphine at the hospital Cochin and the Bicétre; of these, four where chronic catarrhal affections which were quickly relieved, and soon cured by the application of acetate of morphine to a blistered surface; half a grain, gradually increased to two grains, was introduced; this was continued for a month, and whenever the treatment was intermitted the symptoms returned. Two cases of phthisis pulmonalis were relieved, but

the dose was necessarily smaller. Pleurodynia, which resisted leeches, blisters, and other remedies, was thus relieved; a neuralgic affection of the temple was cured by the same means. A very interesting case occurred at La Pitié, in February, 1826, the details of which are to be found in the July number of the *Medico-Chirurgical Review*, condensed from the *Archives Generales de Médicine*. It was one of those gastralgic affections, which similate gastritis of a chronic kind, attended with perpetual vomiting, and in which no internal remedy could be employed. M. Lambert applied gr. ss. of acetate of morphine to the blistered surface; in a few minutes the vomiting ceased, as if by magic, and the patient passed a better night than she had done for some time. The next day the process was repeated, and the patient slept the whole of the day; the acetate o morphine was gradually increased, until at length food was retained, and a cure affected. M. Bally, in the Memoires de l'Academie Royale de la Médicine, details its effects on rheumatisms, lumbago, and sciatica, and he states that three cases of tetanus were treated by it with success; one was traumatic, the second produced by strychnine, and the third by fright.

M. Magistel has made public the happy result of his employment of acetate of morphia in hemicrania. Dr. Stokes of Dublin, has been successful in two cases of intermittent hemicrania, which soon yielded to this treatment.

M. Bally has employed strychnine in this manner with considerable success. Of two men affected with paralysis of the hands, one was evidently cured by the application of a grain to a grain and a half of strychnine daily to the raw surface produced by a blister; the second recovered the use of one hand, and nearly recovered that of the other, and a third paraplegic patient was able to walk. M. Lesieur has applied powdered strychnine, one sixth of a grain, to the blistered surface for hemiplegia; when the quantity was increased to two grains, a paroxysm of tetanus supervened, which was dissipated by the substitution of acetate of morphine for the strychnine.

Mr. Foot tells me that he has had, at the Royal Westminster Ophthalmic Hospital, an opportunity of seeing amaurosis treated by strychnine endermically employed; a small blister was applied to the temple, and the epidermis removed, after which a quarter of a grain of the alkali was sprinkled on the sore; the dose was gradually raised to a grain; during its ex-

hibition some of the peculiar symptoms attendant on strychnine became evident, namely, spasmodic twitchings, &c. In one or two cases it appeared to do good; vision certainly improved, but it was not pursued far enough to affect a cure; of course the danger attendant upon the employment of larger doses would naturally prevent the full use of this active substance, more particularly when the fact of the death of Majendie's curé by a morsel of strychnine endermically introduced is so well known. Very few purgatives have as yet been tried according to this method, but it has been found that tincture of aloes, applied to a denuded surface, will act upon the bowels quite as copiously as if taken internally, and many of this class of medicines act with a rapidity quite equal to that celerity with which the bowels act. It has been known that ʒ ij. of colocynth, or bitter apple, applied to the wound of a dog, has destroyed it with great rapidity. The necessity for the administration of endermic purgatives has not yet arisen, and therefore they have been less employed than the narcotics, from which so much benefit has been derived. Musk, belladonna, datura stramonium, hyoscyamus, have been all applied in neuralgia, and with evident success, and the names of Bloquiet, Piorry, and Trousseau, are sufficient testimonies of the truth of the power of these remedies.

The advantages that result from the endermic mode of treatment of disease, will be found in many cases so important, that we may expect great results from it; yet again there will be very many instances in which it will prove unsuccessful; where diseased skin exists, where there is a languor in the capillary circulation, where there is a determination to the external tissues of the body, where sudorifics have been much employed, or where the kidneys have much influence upon the system, we can expect to derive little or no advantage from it. Where, on the other hand, the stomach and intestinal canal suffer from inflammatory action, or where the nervous influence has been suspended by the action of narcotic substances, where gastro-enteric irritation exists, we may, according to the nature of the disease, the habits of the individuals, and the properties of the medicinal agent we wish to introduce, find that we have gained an important mode of action upon the human body, which will serve at any rate as an auxiliary, and sometimes as a resource when we have already exhausted all the means which long experience has placed in our hands. Like every other discovery, it will be a long time before it arrives at perfection;

many failures will necessarily happen, but by directing steady and careful observations to all the phenomena that may present themselves, we shall at last attain the great object of our research, — the power to do good. It is incumbent on the medical man to scrutinise with anxious care every new plan that may be proposed for the alleviation of disease, or for the prolongation of life; although many may be offered, which, upon strict examination and cautious experiments, are found little adapted for the great objects he has in view, he must always bear in mind that from unsuccessful researches he attains the great end of knowledge, — truth; and that although he may be baffled in the object of his inquiry, yet that every fresh step he takes advances the progress of science. In inquiry into a new mode by which medicine may be introduced into the system, we must be well aware that at the first onset many discrepancies may be visible, many mistakes may be made, and many difficulties may present themselves, which can only be surmounted by reasoning founded on experiments. We are not to expect that the new system will be found superior to the others that have already gained general estimation from their excellence, nor do we vainly expect that every malady will yield to a new treatment; all that we wish is to ascertain whether it may not be possible to add some fresh light to the science of medicine, and to afford some new aid for the advancement of the healing art; for the time is now gone by, when every new object is hailed as a great and important discovery, lauded by many, abused by others, until the public mind is led to distrust even the judgment of philosophers, and to deny the knowledge of the wise, when they find their opinions differing so much, and yet so fiercely supported.

Revaccination.

Communicated for the Medical Magazine,

By W. Hooker, M. D.

During the past year I have revaccinated many adults who had the disease in infancy or childhood; and was surprised to find that in the great majority of cases a vesicle was formed, and that in many it went through its course with little

deviation from that of the original vaccine disease. My experiments were, however, limited, until the occurrence of a few cases of small-pox produced an alarm, and consequently a call for universal vaccination. I now had an opportunity of examining the subject more extensively, as I vaccinated more than five hundred persons, nearly half of whom had been vaccinated before. The results were very interesting. In most of those who were vaccinated a vesicle appeared, though it was in nearly all an abortion to a greater or less degree. That is, the vesicle would run through its course, which was an irregular one, in a shorter time than a genuine vaccine vesicle, and would also be of a smaller size, and have a smaller and less regular areola around it, or none at all. The length of its course varied much; dying away in some cases in a day or two after first making its appearance, while in others, it was scarcely distinguishable either in the length or regularity of its course from an original vesicle. Generally, the earlier the appearance of the vesicle, the shorter was its course. In no case did I perceive a marked constitutional affection, except in one, and that a female of lively susceptibilities. Neither in the most regular cases were the arms as sore as in a first vaccination.

I found it to be generally true, that the longer the time which had elapsed since the first vaccination, the more nearly would the vesicle follow the course of the regular vaccine disease. In some few cases, in which only a few years had elapsed since the first vaccination, no effect at all was produced, except in some of them a slight irritation which lasted but a day or two. We have good reason to conclude then, from these facts, that the influence of the vaccine disease upon the system is gradually diminished from year to year, and in some cases is almost, if not entirely lost. *And so far as this influence is lost* in any individual, just so far there exists in his system a susceptibility to the cow-pock, as is shown by vaccination, and to the small-pox, as is shown by its occurrence in such persons in its milder form of the varioloid. And besides, as those who have had small-pox may have the varioloid, so also can they have the cow-pock, as I have proved by vaccination in many instances. They have it in the same abortive form that the revaccinated do.

It appears clear to me from these facts, that the vesicle of a revaccination has the same relation to that of the original vaccination, as the varioloid has to the small-pox. The

first is an *abortive* cow-pock, and the latter is an *abortive* small-pox. And as in some cases the modified cow-pock vies in severity with the genuine, so does the modified small-pox. The more minutely and extensively we compare the two diseases, the more striking will the analogy appear.

Perhaps it will be said, that in those cases in which the pustule went through its course with so much regularity, the original vaccination was spurious. That there is much spurious matter in circulation I have no doubt, and that even among respectable physicians. I call to mind an instance, in which matter was sent to three different physicians, and was found by all of them to be spurious, producing a ragged suppurating sore in the course of five or six days. And yet it was sent by a physician who had been vaccinating a whole town. There is much carelessness on this point. It is too often taken for granted, that if a vesicle is produced at all it is a good one, and it is not even looked at in the whole of its course. This is especially the case with practitioners who have around them a very widely scattered population. It would be at least very inconvenient, for one so situated to watch properly the progress of every case of vaccination. But however it may be as to the prevalence of spurious vaccination, so far as we can rely on the appearance of the scar, I should infer in the cases above alluded to, that the first vaccination was not spurious, and, what is of more importance, the respectability of the physicians by whom it was performed, in many of these persons, is a sufficient guarantee of its genuineness. Besides, an accurate observer would see in the most regular of the vesicles in the revaccinated, that there was a variation from the genuine vaccine one in many respects — it had a less regularly rounded shape, its color in some of its stages, was not the same as with the genuine, the areola was irregularly shaped and shaded, the constitutional affection was absent or almost nothing, &c. But the fact that we find in the revaccinated *every degree* of variation from the regular course of the vaccine disease, according to the length of time which has elapsed since the first vaccination, settles this point beyond all dispute — proving conclusively that there is *renewed* in the system in the course of some years after vaccination, a greater or less degree of susceptibility to the vaccine disease, and that, therefore, the results which we have stated, are not to be attributed to any deficiency in the original vaccination.

If the view which I have presented of this subject be correct — if it be indeed true, (as I think a candid examination of the facts would convince any one,) that the influence of the vaccine disease is gradually lost, and with this there is a proportionate loss of its protective power against the small-pox — that the susceptibility to cow-pock, and consequently to small-pox is gradually renewed; the inference is a very clear one, that this renewed susceptibility can be destroyed by revaccination, or, in other words, that revaccination is a preventive of the varioloid. This subject appears to my mind to be of great importance, and it is with the hope that others may be induced to examine it, that I have presented it at this time to the readers of your Magazine. If the experience of others shall establish the correctness of the statements which I have made, revaccination should be universally practised.

Before I close this paper, let me state two or three facts which came under my notice recently, that are interesting in their bearing on some points of the general subject. Some time since, I observed in a boy that I had vaccinated, that on the ninth day his whole body was covered with an eruption. On examining him particularly, I found that many of the vesicles had the characteristics of chicken-pox, while the great majority of them appeared to be a mixture of the two diseases. The vesicle on the arm went through its course regularly. By inquiry, I ascertained that the chicken-pox was prevalent in the school which this boy attended. — During the recent prevalence of the small-pox in this town, an infant broke out with the disease soon after the vesicle of the cow-pock had made its appearance, (the fifth day) and the two diseases went regularly through their course together, the small-pox being exceedingly light in every respect — there was almost no constitutional affection, and the eruption was scattered at distant intervals.

While writing the above, I was called to see a well marked, though very mild, case of varioloid in a boy of thirteen, who was vaccinated when three or four years old — about ten years since. Such cases show that in some instances the susceptibility to the cow-pock and small-pox is very early renewed, to a considerable degree.

Norwich, Conn. Jan. 6, 1835.

Medical Medley.

Medical Betting: Sphygmometer: Mahomet: Treatment of Empirics.

In looking over our last files of the French Lancet, the first article on which our eyes rest is in the form of a letter from a Monsieur Dezeimeris to the surgeon, Lisfranc. It seems that a controversy somewhat spicy and pungent, has for some time been going on between these two gentlemen, in regard to some points of surgical history. The letter before us is a reply to Lisfranc on the occasion of his publishing a long pamphlet on the subject, from which pamphlet we make the following extract. Those of our readers who have had the pleasure of listening to the off-hand, abrupt, *tranché* style of lecturing of M. Lisfranc, will easily recognise the tone of the sturdy old growler of La Pitiè. He says, in reply to his antagonist, 'The passage which I have cited as a description of a mode of operating for aneurism, is indeed relative to aneurism; this passage which I attributed to Rufus, is indeed from Rufus; I accused Galen of having copied it and Galen did copy it; I regretted not being able to compare the originals with the copies; it has been proved that these pretended originals are not in existence; but what of this? I have none the less reason, on this account, to regret not being able to make the comparison.' M. Dezeimeris complains bitterly of this cavalier way of replying to his charges, says that unless the manner of defence is changed there can be no prospect of a fair settlement of the point at issue between them, and in order to bring about so desirable a consummation, he announces with all due formality the following plan. 'If,' says he, 'it is the love of science which animates M. Lisfranc, he will accept the proposition that I now make; we will deposit, each of us, the sum of one thousand francs in the hands of a Notary, who shall be chosen by M. Lisfranc. This sum shall be the prize of a *concours* or trial, which shall be opened between us. A jury composed of professors of the Faculty and members of the Academy shall be requested to hear us, and I have the certainty that a sufficient number of the members of these two learned bodies will accept the office of judging between us. I will sustain the article *Aneurism* in the Dictionary of Medicine, which has been attacked in a thesis presented to the *Concours* by M. Lisfranc. M. Lisfranc, or the authors of the thesis presented by him to

the *Concours*, M. Lisfranc, or the authors of the *Researches on the Surgical History of Aneurisms*, published in his name, shall defend these writings. If M. Lisfranc, or these authors come off conquerors in this contest, the prize shall belong to them, and they shall dispose of it as they see fit; if it is awarded to me, I will make a gift of it to the Library of the Faculty of Medicine, so that it will not be wholly lost even to the vanquished, who will thus be enabled to improve themselves by the new works added to the library.

Sphygmometer. Mr. Herisson has invented an instrument, by the use of which he says the most minute and delicate shades of difference in the pulse can be rendered visible and accurately measured. The Doctor has full faith that by the aid of his magical little machine, with its somewhat cacophonous Greek appellation, much new light will be thrown into many of the obscure and benighted paths of diagnosis. What will the opponents of the stethoscope say to this?

Portal. Antoine Portal who died in 1832 at the advanced age of ninety, was born in Gaillac. He commenced the study of medicine in 1760, at Montpellier where Sauvages was then professor. At the age of twentythree years he directed his steps to Paris, where Senac and Lieutaud then held the sceptre of medicine. While on his journey, he fell in with two youthful travellers, like him on their way to the metropolis in search of fortune and fame. These were Treilhard and Maury. A close intimacy was soon established between them, and they communicated to each other their projects of ambition. I, said Treilhard, will be General Advocate; I, said Maury, will become a member of the French Academy; and I, added Portal, will not fail of belonging to the Academy of Sciences. As they heard for the first time the deep toned bells of Notre Dame, Treilhard said to Maury, you will be Archbishop of Paris, and you will become a minister, responded Maury; and myself? asked Portal: you shall be physician to the king, added his fellow traveller. These bright visions of the young enthusiasts were all realized, although it was half a century before the prediction in regard to Portal was literally verified. He was elected to the Academy of Sciences in 1769. Among its members at that time, were Buffon, D'Alembert, Laplace, Bailly, Condorcet, and Lavoisier. He was the particular friend of Buffon and D'Alembert. At the sessions of the Academy he usually sat between Bailly and Lavoisier, both of whom perished in the storm of the revolution. On the return

of Louis XVIII. in 1814, Portal received the title of first physician to the king, and the leisure hours of the monarch were charmed by the conversation of his medical adviser. The same title was conferred on him by Charles X.

Mahomet. At a meeting of the French Academy of Sciences in September 1834, Dr. Beaux presented a memoir on Mahomet, considered as a maniac. The subject was referred to Magendie and Dumeril.

Treatment of Empirics. Stow, in his Chronicles, says, 'A counterfeit doctor was set on horseback, his face to the horse's tail, the same tail in his hand as a bridle, a collar of jordans about his neck, a whetstone on his breast, and so led through the city of London, with ringing of basons, and banished.'

Spurzheim's Brain.

'The barin of the late Dr. Spurzheim is at present in the possession of Dr. William Grigg, of Boston, North America. It is carefully sealed up in a glass vase of alcohol. Dr. Grigg was the most devoted and attached friend Spurzheim had of late years, and closed his dying eyes. The relic could not, therefore, be in more appropriate possession.'

We have copied the above from the London Medical and Surgical Journal, for the purpose of correcting a mistake, into which the Editor has been led, probably by some of our cotemporaries of this city.

The brain of the illustrious Phrenologist is not in the possession of Dr. Grigg, nor of any other individual. Such an appropriation of it would greatly misrepresent the extent of that interest which exists here, in all that has been preserved of the person of the amiable and admired philosopher. That relic, like the sentiments and affections of which it was the honored instrument, should have no exclusive nor selfish destination — it was eminently 'made,' and zealously employed, during life, 'for mankind,' and is the last thing which could befitingly minister to individual vanity, or be yielded even to the more generous demands of private affection. It is in the possession of the Boston Phrenological Society, a numerous and highly respectable association, which its living energies brought

into existence, and inspired with the worthy purpose in which it is now engaged—the investigation of phrenology. The noble relic, prepared for preservation with great anatomical faithfulness and art, by Dr. Winslow Lewis, is neatly arranged in a colored glass vase, and will be carefully preserved in the archives of the Society, as a public treasure — a precious memento, held by them in trust for all who may desire to behold and examine the material instrument of that wisdom and philanthropy which have rendered the name and memory of Spurzheim precious, wherever they are known.

COLLECTANEA.

Life of Sir Thomas Linacre. — The earliest mandate or warrant for the attendance of a physician at court, which the writer has been able to discover, is dated 33 Hen. VI, a reign fertile in the patronage which was afforded to practitioners of medicine; but in that reign no appointment existed which can justly be called physician to the royal person. By this warrant, the King, with the consent of his Privy Council, deputed to three physicians and two surgeons the regulation of his diet, and the administration of such medicines and remedies as might be sufficient for his cure, without any allusion to the previous existence or permanency of the office which they were authorised for a time to fill, or to a remuneration for their services.' The names of the then temporary physicians were 'John Arundell, John Farely, and William Ratcliffe; the surgeons, Robert Warren and John Menshall. The medicines and means of cure which they were to employ are specifically enumerated in the warrant, and present a formidable regimen, to which the royal patient was, by permission or sanction of his Council, to be subjected. There were *potiones, syrupi, confectiones, laxativæ medicinæ, clysteriæ, suppositoriæ, caput purgea, gargarismata, emplastra, cerota, ventosa, cum scarificatione, vel sine hæmorrhoidarum provocationes, &c.*'

It appears, as well he might, that the royal person became dissatisfied with such treatment, and put more confidence in an ecclesiastic, who, if not more successful in his prescribing, was more lucky with the effect of his medicine, for he acted as chie physician to his Majesty. Then, as regards the difference of

pay between the physician, surgeon, and apothecary, the following items relating to the medical disbursements confirm what has been said on this subject, and furnish some curious particulars of the state of medicine in this reign. His majesty seems to have been actively employed in the good work of healing; and, it must be confessed, that whatever honor accrued to the King's physicians, the chief emolument appears to have fallen to the lot of the apothecary, whose office, as the name implies, was then to provide medicines, without taking any share in the prescribing of them.

'21 Hen. VIII., May 16. — To Cuthbert, the King's apothecary, in full, xxx*l.* xii*s.* vi*d.*

'October 1. — To Dr. Baugh, for two sick men at Waltham, xv*s.*

'October 13. — To the sergeant-apothecary, his bill, xviii*l.* iii*s.* x*d.*

'23 Hen. VIII., April 9. — To Cuthbert, the King's apothecary, on his bill, xxx*l.* iii*s.* x*d.*

'July 28. — Paid to a poor child, the which the King's grace heled at Windsor, vii*s.* vi*d.*

'Sept. 11. — To two poor folks that the King's grace heled, xv*s.*

'Oct. 23. — To a poor woman that the King's grace heled at Havering, vii*s.* vi*d.*

'Hen. VIII., Feb. 1. — In reward to Dr. Yakesby and another physitian, iii*l.*

'21. — To my Lord Wiltshire, for a physitian called Dr. Nicholas, xx *angells*, vii*l.* x*s.*

'March. — Paid to my lady princess's physitian, in reward, xxvi*l.* xiii*s.*'

Thus, we perceive, in these times, the apothecary was not to be despised, though his dignity was then considered far inferior to his noble master the physician; yet his pocket, which we believe then was not his last consideration, was always more silvery than that of either the surgeon or the physician. We must here conclude, and leave the history of this great man to the perusal of our readers. We might extract numerous anecdotes from the work, and fill our columns with its pages, but our weekly limits will not allow us; and, even if they did, we do not like stealing the property of others. This work not only simply contains a sketch of Linacre's life, but also much useful historical information. It must have cost its author much time and trouble; and most heartily do we hope he may reap the success his labors so justly merit. — *Lond. Med. and Surg. Journal.*

Dr. Martin Barry. — Dr. Martin Barry, late of Edinburgh, ascended Mount Blanc, accompanied by six guides, on the 16th

and 17th of September last. After they left the grand Plateau, where they breakfasted, they experienced great thirst. The variation of the temperature was most extraordinary: at one time they were oppressed with heat, and shortly after nearly frozen, according to the rapidity or tardiness of their progress. As they neared the summit, the exhaustion from the diminished density of the air was so great, that they could only take a few steps at a time. On the highest point they remained an hour and a quarter. Since this successful attempt, we believe not more than twenty are on record. A Count de Tilly, the first Frenchman who ever completed the ascent, has been at the top of the mountains; but it is stated that his lower extremities were frozen, and that it is thought that his feet must undergo amputation. — *Ibid.*

Mode of performing Transfusion. — Blundell, with much ingenuity, has contrived an instrument, named by him *the impellor*, by which the blood may be at once transfused from one system to the other, without being obliged to stagnate in a vessel; but as this is rather a cumbrous machine, and difficult to adjust, and especially as the same enlightened physiologist has proved beyond dispute that the vital fluid loses little or none of its valuable properties by being collected by a cup, absorbed in a syringe, and afterwards injured, — provided no time be unnecessarily wasted. — I shall merely describe the mode he adopts of performing the operation by a common syringe. The instrument should be of brass, tinned inside, capable of containing between two and three ounces, perfectly air tight, and clean from oil. Two or three persons, — males in preference to females, from their less liability to faint, — being in readiness to supply the blood, one of the patient's veins at the bend of the elbow must be laid bare to the extent of an inch, and divested of its cellular web; an aperture must then be made into it of about a line in length. The blood must be drawn from one of the by-standers in a full stream, about three ounces must be received into a conical cup or tumbler, and absorbed as soon as it is collected: the nozzle of the syringe must be raised perpendicularly, and the piston slowly propelled upwards, to expel any air that might have passed into the instrument: its point must afterwards be inserted in the aperture formed in the vein, and the blood slowly propelled towards the heart. Blundell recommends that no ligature should be put upon the patient's arm below the wound; but Waller thinks it better to secure the vein, by passing a blunt-pointed probe entirely under it, having dissected it away from its surrounding attachments; and this particularly, lest blood should escape from the incision, and embarrass the operator. The chief delicacy of the

operation consists in regulating the quantity used, and in adjusting the velocity with which it is injected to the diminished power of the arterial system. If we throw it in with too much force, we may choke the heart, and death will be the consequence: if, on the other hand, we are too tardy in our operations, the blood may partially coagulate, and be rendered unfit for the purposes of life. We may inject a second, third, and fourth syringe full, deliberately watching between each the effect produced. Twelve or fourteen ounces will most probably, at the highest average, be sufficient, if any advantage is to result from our endeavors: for, since we know that, although a patient will sometimes bear a large loss of blood with comparative impunity, the addition of a very few ounces more may irrevocably depress her, so I think we may reasonably infer that a small quantity added to the system, after a great diminution has been sustained, will be sufficient to raise it to the necessary point; unless, indeed, the nervous energy be too much sunk to be roused by any means that human ingenuity could devise.

I have directed, that if *transfusion* should appear necessary, human blood should be used for the purpose; and this recommendation is founded on experiments first, in modern times, performed by Dr. Leacock of Barbadoes, and made known through the medium of his inaugural thesis, printed in Edinburgh in 1817; and afterwards frequently repeated and varied by Dr. Blundell. These experiments prove that the blood of one genus of animals is unfit to carry on the functions of life, when injected into the system of an individual of another genus. If human blood, for instance, be injected into the veins of a dog, after the animal has been bled to syncope, resuscication for a time occurs; but it is not lasting — the powers soon begin to droop, and after a period, varying from a few minutes to some hours of languid existence, death takes place. Thus, then, we must never think of employing, for the purpose in question, any other blood than that derived from the human subject. — *Lond. Med. Gazette.*

Use of the Extract of Belladonna in cases of Strangulated Hernia. — The means employed to obtain the reduction of a hernial tumor before having recourse to an operation are extremely numerous and varied; some surgeons depend entirely on bleeding and cold topical applications; others endeavor to lower the strength of the patient, and diminish muscular action by powerful and frequently repeated doses of tartar emetic, and the same effect has been obtained by the administration of tobacco through the rectum; but the use of this latter remedy is always attended with inconvenience and danger, in consequence

of which it has been altogether abandoned by continental surgeons. The effects of belladonna on certain muscular structures have been long known and taken advantage of in surgery and midwifery, and it was no doubt from analogy that Dr. Frankel, according to a paper in the *Journal des Chirurgerie und Augen-Heilkunde*, vol. xx. of which we make the following analysis, was induced to employ it as a powerful auxiliary to other means for the reduction of strangulated hernia. Since 1829, he has treated six cases of this kind successfully, by repeatedly rubbing the tumor with a pomade containing belladonna.

The first case was that of a female peasant, aged 42 years, who had been thrown down and injured by the pole of a cart. She was brought to the hospital in a state of extreme feebleness, with nausea and vomiting. On examination, a strangulated hernia was discovered on the right side; she was immediately bled, leeches were applied to the part, and cold lotions placed over the tumor. In spite of these remedies, the abdominal pain increased, the constipation was obstinate, and the vomiting became stercoraceous; an operation was proposed, but rejected by the patient. Dr. Frankel now administered at intervals a few drops of laurel water, and rubbed the tumor, every hour, with an ointment containing a large quantity of the extract of belladonna. This application was soon attended with happy results. The accidents were alleviated, the hernial tumor became soft and small, the vomiting ceased, and the hernia was rapidly reduced.

In another case, the symptoms of strangulation had lasted for eight days, and an operation was pronounced indispensable, when reduction was obtained by the belladonna. This was a female whose hernia descended only during pregnancy, in consequence of which she did not wear a bandage. The tumor reappeared after a violent and sudden effort, and soon became strangulated; the bowels were now obstinately confined, there was vomiting of fecal matter, and, in short, all the symptoms which usually accompany strangulated hernia manifested themselves. The surgeon in attendance proposed an operation as urgent, but, as in the former case, the patient was unwilling to submit, and the extract of belladonna in consequence was employed after every other means had been in vain tried during eight days. The remedy was here attended with success, and the tumor soon reduced.

The other cases reported by the author are of a similar nature, and were terminated in a favorable manner. It is worthy of remark, that they were all examples of femoral hernia in females, a species which is much more subject to strangulation than the scrotal hernia of man. — *Lancet.*

Treatment of Nasal Polypi. — Mr. Hutchinson says, in looking over my papers the other day, I found a communication from an old friend and brother officer on the subject of polypus, which is of too much importance to pass unrecorded. The paper was transmitted to me in 1833, shortly before a serious illness, or the substance of it should not have been so long withheld from the profession. The article itself is probably too extended for the limits of your journal; but I shall condense it in such a manner, I hope, as to satisfy the author, and at the same time put the profession in full possession of his successful method of treating polypus.

Mr. Joseph Dallaway, divisional surgeon of the Coast Blockade, states that in seventeen cases of common nasal polypi, he has succeeded in curing them all without forceps, or any other mode of treatment than a solution of the sulphas zinci in water, in the proportion of from ℈ij. to ʒj. of the former, in ℥j. of the latter. This lotion, he states, is to be introduced up the nostrils by means of lint, which has been well moistened with it, and the lint spread over the surface of the tumor, as far up as can conveniently be effected, by means of a probe or director. This lint must be kept moistened by dropping in the solution of zinc four or five times in the day, and then by removing it night and morning, to be replaced with a fresh piece of such moistened lint. Mr. Dallaway states that his seventeen cases were all cured of the disease within a fortnight, by this simple remedy. He does not state, however, that any of the cases enumerated were of a malignant nature, but merely the common soft pieces of polypus, as I understand him.

Mr. Dallaway first adopted this practice in polypus, he says, so far back as 1797; and aptly remarks, that it *may* be equally successful in certain cases of polypus uteri. I must say, that upon the receipt of this paper, I tried the remedy in my own practice at the Westminster General Dispensary, and in three cases of the soft common polypus I succeeded, within ten days, in removing the disease; and I understand from my colleague, Mr. Thomas Chevalier, that he was equally successful with one or two others. — *Lond. Med. Gazette.*

Arrest of Vomiting. — Mr. Richard Baylis, of St. John-square, M. R. C. S., has addressed a letter to us on this subject, in which he says, — I beg to offer to your notice a simple but effectual mode that I have followed for nearly forty years in the treatment of cholera morbus (and which not in one case has failed,) hoping and believing that if pursued by my medical brethren, to arrest the vomiting attendant on the malignant cholera, they will find it equally beneficial. It consists of the effervescing draught,

but given in a *different manner* to that which is usually employed, and on this mode of administration *depends its virtue.* I dissolve one scruple of the subcarbonate of potash in an ounce of peppermint-water, with one drachm of the tinct. of catechu, one of simple syrup, and ten drops of tincture of opium, for the *alkaline* draught. I then dissolve eighteen grains of citric acid in an ounce of water for the *acid* draught. The alkaline is poured into one glass, the acid into another, when the patient is directed to take a glass in each hand, swallow the alkaline, and the *instant* the glass is from the mouth swallow the acid. Thus the extrication of carbonic acid takes place entirely *within the stomach.* If this be *ejected* I repeat the dose within an hour, and I solemnly assure you that in the course of an extensive practice I know but two instances which required a third dose (which was repeated two hours after the second) without the vomiting being entirely suppressed; the one was a most violent state of common cholera with spasms, the other a decided case of the malignant. After the vomiting has ceased I repeat the medicines every six hours, for a few doses, in the common way, urging the patient to drink it the instant the ebullition commences. It appears to me that the carbonic gas has the power to render inert some morbid secretion in the stomach, and that therefore the extrication of gas should wholly take place there. In the vomiting attendant on bilious colic, inflammation of the stomach or bowels, strangulated hernia, and injuries of the head, I have used it with equal success, and regard it as my sheet anchor. In cases where no purging exists, of course I omit the catechu. I hope other practitioners may be induced to follow my manner of administering the effervescing draught.' — *Lancet.*

Reproduction of the Eel. — It has been commonly supposed that eels are viviparous; but Mr. Yarrell, who read a paper on this subject before the British Association at Cambridge, thinks otherwise. He states his belief that the common opinion has been owing to the fact that eels are subject to numerous intestinal worms, three species of which he describes as of frequent occurrence. The sexes are distinct in eels, and the females are oviparous. They are migratory; at least, in tide rivers, they extend their migrations as far as the brackish water; this takes place in autumn. In winter they lie imbedded in the mud. The restlessness of eels during thunder-storms, when quantities of them are caught, seems to be owing to the high degree of muscular irritability that exists in animals which have a low degree of respiration. Fishes that swim near the surface die soon when taken from the water, having a higher degree of respiration, and less muscular irritability, than those that swim near the bottom; and *vice versâ.* — *Lond. Med. Gazette.*

Discovery of an Insect in Itch, by experiments lately made at the Hôpital St. Louis, Paris. — The antiquity of the disease vulgarly denoted *the itch* will not be contested, and nearly of as ancient a date has been the popular opinion that it is accompanied by an insect to which the appellation *acarus scabiei* has been given. The popular supposition has always existed, not so that of the learned; for although at periods it has by some authors been zealously adopted, it has at others been as obstinately repudiated. The existence of the acarus, however, as an attendant on the itch, is now placed beyond doubt by late experiments at the *Hôpital St. Louis* in Paris.

Gale, the French word used to express *itch*, is by some derived from the Latin *callus*, but according to more judicious etymology, it takes its origin from the Latin *galla*, a nutgall, — a supposition which, if correct, would show the antiquity of the belief that an insect is present in the itch, just as the nutgall is produced by the *cynips quercusfolii* on the leaves of the *quercus infectoria*. The Arabian physicians, and particularly Avenzoar, firmly believed in the presence of an insect in the itch. It was distinctly described by Moffat, an English author, who wrote in the beginning of the 17th century. Among the Italians, Redi and Bononio have noticed this insect, and the latter author has given a particular description of its physical characters and its habits. After these writers came Linnæus, who confounded it with a mite of cheese. It was subsequently made an object of special research by De Geer, who described it so well, and gave so accurate a drawing of the insect, that it was called the *acarus of De Geer*. M. Latreille has placed it among the genus *sarcopte*.

In 1812 the subject again became a matter of dispute, and a series of experiments were instituted in Paris, the result of which was, that the acarus was found, and exhibited to the eyes of both the credulous and the incredulous, and its existence was once more considered an article of medical faith. However, at a subsequent period, M. Lugol, who had for six years taught the existence of the acarus in his lectures on diseases of the skin, on being appointed to the *Hôpital St. Louis*, considered it unworthy of a hospital professor to call on his pupil to believe any thing in the absence of ocular demonstration which was within reach. Accordingly, pins, needles, and various probing instruments, together with microscopes, were again in requisition, and employed most assiduously by M. Lugol and his class, but, strange to say, the acarus, formerly so complaisant, evaded every research. Other microscopes of greater power were provided, but after several days of scrupulous examination nothing was found.

M. Lugol, from being a firm believer in the existence of the acarus, became, from this time a decided sceptic, and so fully was he convinced of the impossibility of finding this insect, that in

a conversation with M. Alibert, who rather leaned to the opposite doctrine, he declared he would give a prize of three hundred francs to the first student who should extract an acarus in his presence. This challenge was thrown out in 1828, but not until 1834 was it met. Not that the interval was allowed to pass without repeated attempts to discover the insect. Several students sought for it in vain. M. Gales, the head apothecary at *St. Louis* in 1812, showed what he described as the acarus, and wrote a thesis thereon, accompanied by a drawing, but the insect figured by him was recognised to be nothing more than the mite of cheese. Whether he found the real insect or not is a matter of doubt, but no doubt can exist as to the incorrectness of the drawing he has given.

Three days were devoted to a further investigation at the *Hôtel Dieu*, — a doctor of the faculty of Paris presiding, M. Raspail being present, but the three sittings were unavailing. Some time afterwards M. Memer, a naval surgeon, came to the *Hôpital St. Louis*, and boasted of having found the acarus; but what he exhibited was nothing but the mite of flour. Believers in the acarus now lost ground, and said little about it, referring to it at all in their lectures only very cautiously. Even the courageous Alibert preferred laying before his class the host of great names in favor of the acarus, to declaring to his pupils his own conviction on the subject.

Thus matters stood, when, about the beginning of August last, a girl presented herself at the consultation room of the *Hopital St. Louis*, to be treated for what she called the itch. Some doubt arising as to the exact nature of the eruption, M. Renucci, an Italian student, offered to remove all difficulty as to the diagnosis, by ascertaining the presence or absence of the acarus, which he said was so commonly found in cases of itch in his country, that the peasants extracted them from each other with pins or needles.

No objection being made to the experiment, M. Renucci examined the girl's hand, and in an instant extracted a small roundish demi-transparent body, of about two thirds the size of an ordinary cheese mite, and exhibited it in presence of a number of students of the hospital. On being placed on black paper, or on the nail, this whitish speck exhibited the power of locomotion, scampering about with activity, unaware of the noise it might make in the annals of science. On the arrival of M. Alibert (as it was that professor's morning for receiving patients,) the facts were detailed by M. Gerdy the *interne*, when M. Alibert ordered a *proces verbal*, or report of the circumstance, to be drawn up and signed by the students present, (thirty in number,) reminding them, at the same time, of the 300 francs offered by M. Lugol.

A short account of the discovery appeared in one of the medical journals, and elicited a reply from M. Lugol questioning the reality of the occurrence, and treating it as a fresh mystification. But M. Renucci was not to be deterred from pressing his claim to the merit of the 'discovery,' and, backed by M. Alibert, inserted a rejoinder, offering to extract the acarus alive before M. Lugol himself, or the whole faculty.

The affair now began to cause some excitement; nothing was talked of or looked for, in the hospital, but the acarus; the wards allotted to itch patients, heretofore so quiet, were now thronged with students and visitors, anxious to discover or view the long-disputed insect. The day appointed for convincing M. Lugol arrived, and with it a number of scientific persons; amongst others was M. Raspail. Several acari were extracted, placed under the microscope, and seen as plainly as an insect of that magnitude could be. M. Lugol's doubts vanished before the mass of living evidence, and, addressing M. Renucci, congratulated him upon his success, and upon the benefit he had thus conferred upon science, at the same time assuring him that the prize of 300 francs should be forthcoming, as soon as he wished to claim it. Upon this occasion M. Alibert declared that the reward should not be limited to 300 francs, but that he would add a gold medal, bearing the name of the discoverer and the date of the event. Praise is due to M. Alibert for his efforts on this occasion, and his encouragement of M. Renucci, whose exertions would otherwise most probably not have been successfully made. But few insects were found during the first experiments, but, stimulated to perseverance by the persuasions of M. Alibert, the searchers for the acari produced them at last *en masse*, and during repeated sittings, and thus forced conviction on unbelievers.

According to M. Renucci, the *acarus*, or *itch ciron*, is never to be found in the vesicle. It appears, however, that M. Gerdy junior, has in two cases extracted the insect from the vesicle, in which situation it has occasionally but very rarely been found by others. In the great majority of cases the acarus is only to be met with in a small epidermic canal, probably excavated by itself, invariably terminated by one of its extremities in the vesicle, either straight or tortuous, and varying in length from one to three lines. The raised epidermis forming the vault of that canal, presents a grayish yellow dull aspect, which is interrupted most generally towards its non-vesicular extremity, by a dull white opaque speck, betraying the position of the insect, and owing the difference of its hue to the same cause. This extra-vesicular position, combined with the minuteness of the insect, partly explains the fruitlessness of past researches. As it seems to be found that temperature exercises much influence upon the activity and bulk of the insect, the season may furnish an addi-

tional explanation of the want of success upon former occasions. Such being the remarkable position of the insect, it is only necessary to take a fine needle, and, having previously washed the vicinity of a vesicle, to penetrate the vault of the subdermic groove as delicately as possible, so as to avoid mutilating the little creature which it contains, and, having captured it, to withdraw it, clinging to the point of the instrument. Place the little shapeless, opaque, whitish body in the field of a strong microscope, and you will be amply gratified by finding this almost imperceptible and inorganic-looking mass start into an insect, having limbs, joints, feelers, &c. We have repeatedly seen and examined the insect by transmitted and reflected light, and can vouch for the following description drawn up by the celebrated Raspail: —

'The *acarus scabiei*, seen through the microscope, presents the form of a tortoise, a shining surface, more transparent in the centre than at the circumference, of a white opaque color. Its other shades would appear to be the result of the division of luminous rays passing through the lens. The head, which may be considered as a perfect retracting sucker, is provided at each side with two articulated feet, terminating, at the tarsus, in a funnel-shaped prolongation. The insect is armed with four additional feet, longer than the former, but without the funnel-shaped appendage; this articulation is not at the sides, like those of the horse-acarus, but underneath the belly; on the back is perceived a number of eccentric lines at short intervals, and having the appearance of joints; the belly presents several dark-colored spots; the body and legs seemed furnished with a quantity of hair of unequal length.'

Such is the appearance of the insect as it has been extracted from an immense number of itch patients (who had not commenced any treatment — a necessary condition), and as it has been seen and examined by several distinguished medical men in this capital. There is some doubt as to the number of feet upon which the insect moves, some observers noting eight, and others only six, a difference which is attributed by M. Cloquet to the relative age of the insect, and by M. Gales to the difference of sex.

The existence of the acarus is, then, placed beyond doubt, but its relation to scabies is in clouds and darkness. Is it the cause of the vesicle, and if so, how? Is the vesicle caused by the deposition of its eggs, the development of which determines inflammation — or by the deposit of a poison, — by irritation produced by its members, — or by its bite? Or does it show itself in the individual merely in consequence of the attraction produced by the itch matter, or the filth attached to the person?

A delirium of joy at this discovery every day betrays itself

in the amphitheatre of the *Hôpital St. Louis*. When it has subsided, a solution of these questions may be effected by careful and continued research. The only rational attempt as yet made towards this solution, is that of Albin Gras, a student at the hospital. This gentleman submitted his arm to a troop of these parasitical insects, and obtained a development of some characteristic vesicles. A subsequent intolerable itching, combined with the external characters, left little doubt as to the power of these insects to communicate the disease. But still the question is not decided, because the matter adhering to the insects may have been the cause of the vesicles, instead of the irritation simply produced by its presence. It has indeed been proposed by one of the professors (seriously ?) to submit the insect to the action of a warm-bath before inserting it under the epidermis, and to pay particular attention to washing, brushing, and drying its feet! The experiments are still in progress." — *Lancet.*

Pulse. — At the late meeting of the British Association at Edinburgh, — Dr. Macdonnell read a very curious paper, showing that the variations of the pulse produced by posture, are independent of muscular action; the acceleration always following the angle of inclination of the body, whether the patient be asleep or awake. — *Ibid.*

Imposition. — Dr. Bushman exhibited some worms which he asserted had been found in the blood of a female. A discussion ensued, during which several medical men declared that they had ascertained the woman to be an impostor, and that the worms, when examined by Mr. Rhind, had proved to be the same that are found in common ditch water. — *Ibid.*

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

SELECTED ARTICLES.

WE shall henceforth endeavor to remove the objection of our brethren of the United States Medical and Surgical Journal, 'the promiscuous heaping of selected and original papers and reviews,' by arranging such articles under the above head as belong there. While we feel flattered by the high terms in which they have spoken of us, and thankful for their kind suggestion, we would merely hint, supposing they have done as they would be done by, that in the very number of the Journal which contains our admonition, we cannot see any very essential difference between their arrangement and our own.

SYMPTOMATIC AFFECTIONS OF THE RESPIRATORY SYSTEM IN FEVER.

From a Lecture at the Park-Street Medical School, Dublin.

By WILLIAM STOKES, M. D.

HAVING discussed the symptoms which belong to the nervous, let us now take up the consideration of those which characterise affections of the respiratory system.

I believe I may say, that a considerable number of cases of

typhus are either [not ?] accompanied by thoracic symptoms, or, if they do exist, they are in general slight and easily manageable. In some instances, however, the pulmonary system is severely attacked; and, in many cases of this description, death is caused by asphyxia from exorbitant secretion, brought on by extensive bronchitis occurring during the course of fever. There is one general observation, which applies not merely to the derangement of the respiratory system, but also to the morbid changes which may take place in any viscus of the body during the progress of typhus; and this is, that the functional derangement observed in each particular organ during life, is seldom in proportion to the changes discovered after death. With symptoms of an apparently trifling character, and by no means calculated to alarm, you may in the case of the lung, find after death marks of universal bronchitis, of enormous congestion, or extensive pneumonia. The same character of insidious latency applies to all the inflammatory affections which come on during the progress of fever. If we seek for an explanation of this fact, we shall, perhaps, find it in considering, that, during the existence of fever, the nervous system appears to be laboring under some profound injury; and we know that where innervation is injured, sensibility is impaired, and hence the symptoms expressive of suffering or disorganization are more or less latent. Hippocrates observes, in one of his aphorisms, in cases of severe disease, where no pain is complained of, there is disease of the brain, thus accounting for the absence of suffering by referring it to some lesion of the sensorium.

In speaking of the catarrh of fever, I beg of you to bear in mind that this, like all the other inflammatory affections supervening on fever, is to be looked upon as a secondary inflammation. When I use the term catarrhal or gastro-catarrhal fever, I do not mean to express fever symptomatic of catarrh, or of catarrh combined with gastritis, but that the catarrh, whether simple or combined with gastro-enteric disease, is one of the results of fever. There can be no doubt that, in the majority of instances, this is the case. All the arguments which I have adduced to prove that affections of the brain were not the cause of fever apply also to disease of the lungs; and we shall find the same thing to hold good when we come to the digestive system. The experience of Andral, Louis, Laennec, and various British authors, who have written on fever, perfectly coincides on this point. You will see, in

Laennec's work on auscultation, that he has devoted a good deal of his attention to those secondary affections of the lungs which occur during the progress of fever.

Now, in many cases, this bronchitic derangement may exist during the whole course of the disease without any degree of violence, and the patient will recover without having any attention paid to it, in fact, many will go through fever with lesion of the bronchial mucous membrane so slight as to have no claim to notice. The occurrence of an affection of so trifling a character as this, is not sufficient grounds for altering or modifying your prognosis; still it should always put you on your guard, for it may, in the course of six or seven days, become greatly exacerbated, assume a very intense character, and even carry off the patient. Whenever, then, you discover any increase in the bronchitic symptoms, direct your attention immediately to the state of the lung, and be on your guard lest the disease should get ahead of you. What we generally observe in these cases is, that the patient has some cough, but this is neither hard nor troublesome; you can hear now and then a few sonorous râles over the chest, but it sounds quite clear on percussion. Such a case as this, as long as it remains unchanged, is of but little consequence. In some instances, however, the affection of the bronchial membrane becomes a most formidable symptom; the patient has lividity of face, cough, hurried breathing and expectoration, and all his symptoms point out the existence of a very extensive disease of the lungs. In other cases, the symptoms of bronchitis may be also entirely absent; and yet, if you make an examination with the stethoscope, you will detect the existence of a latent but general and intense bronchitis. Here, persons unacquainted with the stethoscope, and depending on symptoms only, may be led into great and fatal errors. Nay, even persons acquainted with the use of this instrument may, by neglecting to make a proper examination, fall into great mistakes. Thus, if you apply the stethoscope to the patient's chest while he is lying on his back and breathing in the ordinary way, all you can ascertain is that there is feebleness of respiration, with here and there a sonorous râle. If you were to content yourself with such an examination, and decide as to the state of the bronchial mucous membrane from the signs afforded by ordinary respiration, you would be wrong: for though the râles may be few and scattered during ordinary breathing, you will find that when you raise

the patient up and make him take a full inspiration, so as to cause the air to enter the minute bronchial tubes and air vesicles, the râles become intense and are audible over a large portion of the lung. You will find also, that the disease generally affects the middle, inferior and posterior parts of the lung, and that it produces here symptoms approximating to those of pneumonia. Another curious circumstance, connected with cases of this description, is, that, according as the patient gets better, the râles become louder and more distinct; and here we have the apparent anomaly of an increase of the morbid sound, pointing out a decrease of the disease. This is explained by recollecting, that, at the height of the bronchial affection, the minute bronchial tubes and air vesicles are chiefly engaged, and, as from the engorgement of the lining membrane, the quantity of mucus which fills them, and the feeble state of respiration, the air either does not enter into them, or, if it does, only imperfectly, the consequence is that the characteristic râle, or morbid sound, is scarcely heard. But when the disease is on the decline, and the minute tubes become free, the bronchial affection being then chiefly confined to the larger tubes, we can hear the sonorous râle distinctly during ordinary breathing. Many cases of this kind terminate fatally. The patient continues in a low adynamic state, with hurried breathing, and lividity of face for two or three days; then comes a rattle in the throat, and, in the course of ten or twelve hours he dies. On dissection the marks of general bronchitis are evident, and the bronchial tubes are found filled with a sanguinolent mucus. In some of these cases super-secretion from the bronchial mucous membrane sets in with extraordinary rapidity, and carries the patient off at once.

This form of disease is ordinarily co-existent with derangement of the gastro-intestinal mucous surface, and this forms one of the most common and fatal varieties of fever in this country. In some cases the disease predominates in the respiratory, in others in the digestive, system, and in some instances you will see a very curious alternation of this predominance of morbid action between the thoracic and abdominal cavities. To-day the breathing is hurried, the cough troublesome, the stethoscopic signs well marked; in two or three days after, the cough disappears, and the breathing is relieved, but the belly is more swollen and tender, and the tongue has become redder and more parched. Then the abdominal symptoms will improve, and the indications of pulmonary irritation become again

more manifest, and thus, even during the course of the same fever, we may have several alternations of this kind. This complication of disease of the thoracic and abdominal cavities is extremely common in fever; in fact, it may be almost laid down as a general rule, that, in the affections of the respiratory system in fever, there is a complication with disease of the digestive tube. Now you should always bear this in mind, and, when you prescribe medicines to relieve the pulmonary affection, you should take care that they shall not produce irritation of the digestive system.

In most cases of severe bronchial inflammation you will observe more or less lividity of countenance. This is not seen in cases of simple pneumonia occurring in fever. Bronchitis has a much more powerful effect in producing this phenomenon than pneumonia, and hence it is that slight bronchitis will cause more lividity of countenance than extensive pneumonia. This fact seems to be in accordance with the opinion, that the portion of the lung, in which the process of aëration is carried on, is the bronchial mucous membrane and not the air vesicles. In inflammation of the air-cells of the lung we have little or no lividity, but we never see a case of extensive bronchitis without it. I may mention here, also, that I have seen several cases of bronchitis with very remarkable lividity, in which the temperature of the body was above the natural standard, thus giving a direct proof that animal temperature depends on something else besides the aëration of the blood.

We come now to speak of the pneumonia of fever. This affection may occur under two forms, that is to say, its symptoms may be manifest and prominent, or they may be latent and inappreciable, except through the medium of auscultation. Of these forms the latter is most common. You may in typhus have all the symptoms present which characterise idiopathic pneumonia, you may have hurried breathing, cough, pain in the chest, bloody expectoration, &c.; but, I believe, that, in the majority of cases, the pneumonia of fever is more or less latent. It often happens, that, at an advanced period of fever, without any increase of dyspnœa, or cough, the patient gets worse, and this change you may be sure is indicative of some great visceral lesion. The pulse gets smaller and more feeble, and, on making an examination, we generally find the cause to be an extensive but latent pneumonia. Without manifesting its existence by any of the usual symptoms, the disease comes on insidiously and rapidly, and, on examin-

ing the chest with the stethoscope, we hear the crepitating râle over a large portion of the lung, and the chest sounds dull on percussion to a considerable extent. Observe here, gentlemen, the importance of a thorough knowledge of auscultation. I think I may safely venture to assert, that a person ignorant of percussion and the stethoscope, is totally incompetent to undertake the treatment of any case of fever. I know it has been asserted by some authors, that these affections of the respiratory system are more of a congestive than inflammatory nature. To this opinion I cannot subscribe. We find in such cases, on dissection, all the pathological appearances of active inflammation, redness, thickening, and ulceration of the mucous membrane, sanguinolent secretion, congestion, hepatization, purulent infiltration, and even abscess of the lung.

It is a very remarkable circumstance, that the pleura seems, of all the pulmonary tissues, to be the least liable to morbid alterations in fever. From the details of a great number of modern dissections it appears, that, in many cases of fever, where extensive bronchitis and pneumonia were found to exist, the pleura has in almost every instance escaped. If this be true, it would seem to point out some difference between ordinary idiopathic pneumonia and the pneumonia of fever. In the former we have generally more or less pleuritic inflammation, in the latter it is rarely met with. There is in most cases of bad fever an effusion of bloody serum into the cavity of the pleura, and the same thing has been observed in the case of animals who have been poisoned by the introduction of putrid substances into the veins. This leads us to the knowledge of a fact connected with the history of typhus, that the tissues which are most liable to secondary inflammation are the mucous membranes and parenchymatous organs. On the other hand, the serous membranes seem to enjoy a comparative exemption from active disease. We meet with arachnitis now and then, but very seldom with pleuritis, pericarditis, and still more rarely with peritonitis. Though you may have extensive pneumonia in the chest, or enteritis in the belly, you will have no trace of the existence of inflammation in the peritoneum or pleura; and there can be no doubt that serous membranes are least liable to inflammation in fever. We might attempt to explain this by considering that serous membranes possess but very little sensibility, and consequently are less susceptible of irritation. In the healthy state they seem to be insensible, and we cannot trace nerves in their substance

or on their surfaces. This insensibility appears to be one cause of their exemption; another is, that they are supplied with white blood, a portion of the circulation which seems to be least altered in fever, that which is most affected bein the fibrine and coloring matter.

Let us now discuss the symptomatic affections of the respiratory system in fever. You may have dyspnœa, hurried breathing, and cough, and yet, on examination, you cannot find any distinct bronchitis or pneumonia. You will often meet with symptoms of pulmonary derangement in fever, and yet, when you come to apply the stethoscope, you find either no sign of disease, or, if there be any, quite insufficient to account for the symptoms. Under these circumstances, the affection of the chest must be looked upon as sympathetic, and the disease which is its most common cause is gastro-enteric inflammation. Here, again, we have another remarkable instance of the value of the stethoscope. Symptoms indicating marked pulmonary derangement exist, and if we had not this means of regulating our judgment, we should most probably conclude that there was actual disease of the lungs, and would proceed to treat a sympathetic for a real affection. But, by the aids which physical diagnosis affords, we arrive at a knowledge of the real seat of the disease, and are enabled to direct our curative measures with certainty and effect. But, when I say this, I beg of you to understand that I do not mean that you should be satisfied with a slight or single examination of the case. It may happen that these symptoms (wholly dependent on sympathetic irritation) may go on in this way for several days, and then a change may take place, and *organic disease of the lung supervene.* It is a common, but generally speaking, a true observation, that sympathetic irritation of any organ (when long continued) has a tendency to terminate in actual disease. The circumstances which favor this change are, first, the excessive violence of the functional derangement, and, in the next place, its long continuance. You must be, therefore, on your guard, and examine the chest from day to to day, and if any signs of inflammation appear, meet them with promptitude, and you will generally succeed in averting dangerous consequences. There is another circumstance worthy of remark. If you have sympathetic irritation of any organ without fever, the chances are that it may go on for a long time without producing any bad effects, but if it be accompanied by fever, there is a greater probability of its being

converted into organic disease. This should make you cautious in cases of sympathetic affections of the lung in fever. As far as my observation goes, I would say, that when disease of the gastro-intestinal surface is followed by an affection of the lung, the morbid action generally takes place in the left lung, and in its lower lobe. There seems to be a greater sympathy between the left lung and the stomach, than the right, and you should therefore direct your attention particularly to the left side of the chest. It is a curious fact, that inflammation of the left lung is very frequently connected with pericarditis and gastritis. There seems to exist a very remarkable sympathy between organs on the same side of the body. This is a curious fact, and demands some other explanation besides that which was given by Mr. Hunter, who attributed it to contiguity of position.

The last subject to which I shall allude is, that a liability to chronic disease of the lung very frequently occurs in those cases of pulmonary derangement during fever, and this is apt to come on after the symptoms of the original attack have subsided. In several instances of this kind, you will observe that the bronchial symptoms which are present in fever, and which do not excite any degree of alarm, will very often, on the subsidence of the fever, assume a more threatening character, and pass into phthisis. There is something in the course of fever which has a strong tendency to develope tubercles in persons who are in any way liable to them. We have had numerous examples of the fact among the fever patients treated in the Meath Hospital. Such of you as are anxious for more detailed information on this point, I would beg leave to refer to some researches of mine on this subject, published in the Transactions of the College of Physicians. In the epidemic of 1826 it was a common thing to see our patients, after recovering from fever, attacked by phthisis. This form of phthisis ran through all the usual stages, from the recent formation of tubercles up to the formation of cavities, and was generally very rapid in its progress. In one case the patient died of consumption in seven days after the subsidence of fever.

If, then, you find towards the close of fever, that the patient has dulness under one or both clavicles, with feebleness of respiration, and the other signs of phthisis, you should be on the look out for tubercles. If you find the dulness increase every day, you may be pretty sure of the occurrence of tubercular development. On the other hand, you should remem-

ber, that of all the cases in which bronchitis is most likely to stimulate phthisis, it is when it comes on after fever. A patient, getting an attack of bronchitis after fever, will, in that weak and debilitated condition, exhibit in a short time all the symptoms of phthisis. He will have a bad cough, laborious breathing, great emaciation, and well marked hectic. Yet in many instances I have seen such patients recover under judicious treatment. — *Lond. Med. and Surg. Journal.*

Boston Dispensary.

Abstract of the Reports of the Visiting Physicians from October 1st, 1833, to October 1st, 1834.

By J. Roby, M. D.

The Visiting Physicians of the Boston Dispensary are required to deposit annually with the Secretary of the Board of Managers, a report of the cases treated in their several districts: from these the following report has been compiled. To be perfect, its nomenclature should be uniform, and exhibit the specific character of each disease; it was impossible to do this, or to avoid the use of terms apparently too indefinite for a medical report, which existing in the original returns, it was deemed hardly proper to alter or reject. The same remark will apply to those diseases of a trivial nature requiring little medical attendance for their relief, as 'Odontalgia' and some others.

Taking into view the embarrassing circumstances which necessarily attend the application of treatment, and the condition of a majority of its objects, the results are extremely favorable. For an institution of this kind, 1 in 33 is not an excessive rate of mortality, particularly when of the whole number of fatal cases, one third were patients affected with chronic structural disease, incurable under the most encouraging conditions, and frequently aggravated by long continued debauchery and vice. Of those reported as 'not relieved,' some were dismissed for insubordination, others declined treatment, and others were incurable. The estimate of the 'supposed temperate,' is doubtless much too high; it is difficult to arrive at the truth, and where uncertainty exists charity induces the attendant to give his patient as favorable a character as possible. Of the intemperate, most are inveterate, habitual drunkards; and of moder-

ate drinkers, a large portion are given to occasional excess. It is worthy of remark, that no instance of complete permanent reformation from confirmed intemperance has occurred within the experience of either of the physicians. Periodical intemperance, or that form called by Andral ' Dypsomania,' has been observed in one or two cases.

The chief end of this and similar institutions, is the relief of the sick poor, but without an abstract of the results of its experience, its instruction to the profession, and utility to the public would be considerably abridged. Continued through a a series of years, such abstracts would be interesting subjects of comparison ; they would indicate to a considerable degree, the increase or decrease of different diseases within the boundaries of the city ; and by denoting the prevalent diseases, assist in determining the character of the ' constitution' of every year. Separate from their immediate professional benefit to their agents, and indirectly to medical science, the utility of Dispensary Associations is somewhat equivocal. This subject has been fully and correctly discussed in England, and deserves attentive examination. It is insisted that in these, as in other charities, the demand increases with the supply, and the very facility of obtaining relief multiplies the applicants for it beyond all reasonable bounds. This is undoubtedly true, and though many worthy objects present themselves, those connected with such institutions have daily opportunities of witnessing that which should be laid up against the accidents of life, wasted in riotous and luxurious living, evil habits thus acquired, and the future regarded with recklessness and indifference, because it is considered as already sufficiently cared for by others.

TABLE I.

DISTRICTS..	MONTHLY ADMISSIONS.											
	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
Wards 1 and 3, Dr. Palmer.	7	7	3	8	12	8	12	11	10	20	17	15
Ward 2, Dr. E. Warren.	9	14	10	16	16	18	17	22	7	11	9	21
Ward 4, Dr. Gould.	7	20	3	14	16	17	14	31	31	59	22	25
Wards 5, 6, and 7, Dr. Roby.	18	28	29	36	25	41	28	32	30	31	39	43
Broad-Street, Dr. Foster.	20	43	32	20	19	33	29	21	21	31	27	28
Fort Hill, Dr. Gregerson.	14	21	9	14	15	22	10	8	12	7	9	13
Ward 10, Dr. Davenport.	29	35	40	32	24	27	25	27	29	43	25	44
Ward 11, Dr. Simpson.	11	5	7	10	10	11	6	9	7	14	13	9
Ward 12, Dr. J. B. S. Jackson.	20	12	14	36	20	26	17	24	33	28	25	15
Total.	135	185	147	186	157	203	158	185	180	244	186	213

TABLE II.

DISTRICTS.	Whole No.	RESULTS. Recovered.	Died.	Relieved.	Removed.	Not Relieved.	Remaining.	SEX. Male.	Female.	AGE. Under 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 and upwards.	COUNTRY. Bostonian.	American.	Hibernico-American.	Irish.	British.	Other Nations.	HABITS. Supposed Temperate.	Drunkards.	Mod. Drinkers.	Children of In. Parents.
Wards 1 and 3.	130	117	0	6	4	1	2	41	89	30	9	11	25	21	18	16	39	35	12	30	14		96	6	28	
Ward 2.	170	144	2	17	2	0	5	57	113	31	17	16	18	59	20	9		93		71	4	2	119	21	30	
Ward 4.	259	219	10	11	9	3	7	100	159	62	35	18	82	44	5	13	29	23	70	127	4	1	155	17	67	18
Wards 5, 6, & 7.	380	340	14	4	6	2	14	132	248	110	39	36	36	91	42	26	130	149	47	37	15	2	251	40	44	45
Broad-Street.	324	278	8	13	12	4	9	132	192	99	18	19	79	66	27	16		12	67	241	2	2				
Fort Hill.	154	140	2	6	1	1	4	55	99	26	21	22	40	31	11	3		18	34	98		4	93	28	33	
Ward 10.	380	310	17	18	11	11	13	141	239	113	35	38	70	69	35	20	48	99	79	128	19			11		
Ward 11.	112	93	2	4	3	5	5	52	60	28	20	10	15	17	16	6		67	18	24		7				
Ward 12.	270	243	11	5	0	9	2	96	174	76	21	25	50	46	22	30		97	58	98	13	34	233	15	10	12
Total	2179	1884	66	84	48	36	61	806	1373	575	215	195	415	444	195	139	246	598	385	854	71	25	947	138	212	75

General Report of Cases treated from October 1st, 1833, to October 1st, 1834.

DISEASES.		DISEASES.	
Abortion,	9	Erythema,	4
Abscess,	31	Excoriation,	2
" Alveolar,	2	Fever, Access of,	16
" Mammary,	9	" Continued,	148
Adhesion of Frœnum,	1	" Intermittent,	5
After Pains,	1	" Remittent,	1
Age advanced, Decay from,	2	" Infantile,	3
Aphonia,	2	" Scarlet,	35
Aphthæ,	6	" Typhus,	19
Anasarca,	2	Fracture of Arm,	5
Ascites,	1	" Clavicle,	2
Asthma,	10	" Leg,	5
Brain, Concussion of,	2	" Ribs,	8
" Congestion of,	2	" Thigh,	1
" Organic disease of,	1	Frozen,	1
Burn,	17	Gastrodynia,	3
Calculus, Renal,	1	Gonorrhœa,	1
Cancer of the Breast,	1	Headache,	16
Stomach,	2	Heart, Organic disease of,	2
Caries of the Humerus,	1	Hemiplegia,	2
Catarrh,	50	Hemorrhage from Bladder,	1
Chicken Pox,	6	" Lungs,	8
Cholera, Common,	58	" Nose,	1
" Infantum,	23	" Stomach,	1
" Malignant,	1	" Uterus,	14
Chorea,	1	Hernia,	2
Chlorosis,	3	Hemorrhoids,	3
Colic,	37	Hooping Cough,	50
" Painter's,	1	Hydrocephalus,	2
Cough,	13	Hysteria,	13
Constipation,	37	Inflammation of Ancle,	1
Contusion,	56	" Bladder,	1
Convulsions, Infantile,	14	" Bowels,	15
Cramp,	8	" Breast,	1
Croup,	1	" Brain,	7
Deafness,	1	" Bronchi, Acute,	118
Debility,	4	" Bronchi, Chronic,	41
Deformity,	1	" Ear, Acute,	5
Delirium Tremens,	24	" Ear, Chronic,	1
Dentition, Difficult,	42	" Eyes,	31
Diarrhœa,	168	" Kidneys,	1
" Chronic,	1	" Knee Joint,	2
Disease of the Bowels,	2	" Liver, Acute,	5
" Ear,	1	" Liver, Chronic,	1
" Skin,	23	" Lungs,	66
Dislocation of Shoulder,	2	" Parotid,	2
" Ulna,	1	" Peritoneum,	2
Disordered Stomach,	4	" Pleura,	21
Dropsy,	13	" Testis,	1
Dyspnœa,	1	" Tonsils,	11
Dyspepsia,	63	Influenza,	5
Dysuria,	6	Injury of the Eye,	1
Eczema,	15	" Hand,	1
Epilepsy,	2	" Wrist,	1
Erysipelas,	9	" Spine,	1

DISEASES.		DISEASES.	
Insanity,	3	Prolapsus Ani,	3
Intemperance, Excessive,	4	Prolapsus Uteri,	8
Jaundice,	1	Psoraphthalmia,	3
Lameness,	3	Psoriasis,	5
Leucorrhœa,	6	Rheumatism, Acute,	58
Liver, Disease of,	1	" Chronic,	18
Lumbago,	1	Ringworm,	1
Mania, Puerperal,	1	Scabies,	4
Marasmus,	2	Scalled Head,	13
Measles,	2	Sciatica,	4
Menstruation, Cessation of,	1	Scrofula,	4
" Obstructed,	18	Scurvy,	1
" Painful,	5	Sore Throat,	31
" Suppressed,	8	Sore Nipples,	1
Mumps,	8	Sprain,	10
Odontalgia,	11	Spinal Distortion,	2
Palate, Fissure of,	1	Syphilis,	2
Palpitation of the Heart,	2	Tonsils, Enlargement of,	1
Paralysis,	2	Tooth Rash,	1
Paraphymosis,	1	Tumor,	1
Parturition,	135	Ulcer,	26
Pemphigus,	1	Urticaria,	4
Phlegmasia Dolens,	1	Vaccination,	59
Phthisis,	28	Vaginal Discharge,	1
Pleuralgia,	8	Vomiting,	4
Poisoned by Arsenic,	1	Whitlow,	6
" Opium,	1	Worms,	44
Porrigo,	10	Wound,	18
Pregnancy,	2	Total,	

The deaths were consequent upon the following diseases, viz. Organic disease of Brain, 1; Cancer of Breast, 1; Cancer of Stomach, 1; Cholera Infantum, 3; Infantile Convulsions, 1; Delirium Tremens, 3; Diarrhœa, 3; Dropsy, 2; Erysipelas, 1; Continued Fever, 2; Scarlet Fever, 4; Typhus Fever, 3; Hooping Cough, 2; Hydrocephalus, 2; Inflammation of the Bowels, 2; of the Brain, 3; of the Bronchi, 4; of the Liver, 1; of the Lungs, 3; Phthisis, 17; Poison by Opium, 1.

Morton on Consumption.

Illustrations of Pulmonary Consumption, its Anatomical Character, Causes, Symptoms and Treatment. By Samuel George Morton, M. D.*

The ninth and last chapter of Dr. Morton's work is on the treatment of Phthisis. And first of the treatment of the more prominent symptoms. In *hemorrhage*, Dr. Morton condemns the practice of indiscriminate venesection, and limits the use of this remedy only to cases of active congestion. Ten or

* See Med. Mag. Vol. III, No. 8.

twelve ounces of blood drawn rapidly from a large orifice, accompanied by the common astringents, as elixir of vitriol, common salt, &c. to divert the current of the circulation, and relieve the pulmonary congestion. With the same view, local bleeding or dry cupping, may be practised in the infra-clavicular region. A drain should afterwards be established there, by small blisters, issues, or tartar emetic plasters. We have found the most effectual and least unpleasant plan to be, to apply a blister of cantharides to this region, and dress the raw surface with savine cerate. Perfect rest should be enjoined during the continuance of the bleeding, and a diet of gum water and farinaceous food. As soon as the patient will bear removal, a residence in the country should be recommended, and a pursuance of those exercises which promote the general health. By these means the congested or effused blood is most readily absorbed, and subsequent disorganization prevented. In short, the active form of hemorrhage is to be considered in the same light as inflammation, and met with the same remedies.

But a totally different plan of treatment is recommended in the more advanced stages of phthisis. Where the strength is already reduced, auscultation announces the existence of caverns. Here the pulmonary bleeding must be trusted to the internal use of astringents, and perhaps the establishment of an issue below the clavicles. The use of tonics, absolute rest, and perfect silence are to be enjoined. In those cases where blood vessels of considerable size are opened by ulceration, it is not probable that any remedial agents will avail. Dr. Morton deprecates the external application of cold. When accompanied by a frequent pulse, this passive hemorrhage is frequently much controlled by the use of digitalis.

Our author's pathology leads him to make great account of *catarrh* as a prelude of phthisis. We are not quite sure we can agree with him in saying that a cough may induce consumption. Certain we are, it is no common cause. It is, however, a very uncomfortable concomitant, and well to be speedily rid of. The practice recommended, is the use of local bleeding in the infra-clavicular regions, and combinations of acidulated morphia and tartar emetic. For *dyspnœa*, a combination of camphor water, and Hoffman's anodyne is recommended.

When the symptoms of irritation or *hectic fever* are accompanied with a full pulse, especially at the onset of acute phthisis,

our author pronounces bleeding to be indispensable. We are inclined to think that local bleeding, below the clavicles, will abate the febrile symptoms through a considerable period of the disease, and that it is not enough practised. The use of digitalis, refrigerants, careful regulation of the bowels by the mildest laxatives, are the means next to be depended upon. Above all, carriage exercise in the open air will be found to have a wonderful effect in abating hectic. *Colliquative sweats* are among the most exhausting consequences of hectic. Dr. Morton recommends, as a check to these, sponging the limbs and parts of the body twice a day with a solution of alum in spirits, an ounce of the former to a pint of the latter. The internal use of astringents, and of Prussic acid is likewise commended. It is to be remembered that this symptom frequently alternates with *diarrhœa*. We have found the administration of opium with acetate of lead, and of the nitrate of silver, advantageous both in regard to the state of the skin and of the mucous membrane. For restraining the *diarrhœa*, Dr. Morton depends most on enemata of morphia dissolved in mucilage. He commends also, Dr. Howe's mixture of camphor water, laudanum and nitric acid, and the Moorish apozem, mentioned by Dr. Good, from M. Orban, consisting of a grain of alum with a grain and a half of sulphate of iron night and morning. An opposite condition of the bowels will best be obviated by proper attention to diet. The bread of unbolted wheat so much in vogue at the present day, is a most effectual remedy for this sort of constipation.

One of the great torments of consumptive patients is *pleurisy*. Local bleeding and counter-irritants will most commonly relieve pleuritic pains. In our hands, small doses of colchicum have proved a very valuable remedy.

The *gastric symptoms* in phthisis are often distressing. For the pain, our author recommends embrocation of equal parts of spirits of turpentine, olive oil and laudanum, and when accompanied with fever, leeching.

There is a symptom not mentioned by Dr. Morton, which is very annoying to phthisical patients, — pain in the muscular parts, especially of the extremities. Can this symptom be explained by the absorption of adipose substance from the cellular tissue enveloping the muscular fibre? Friction with the hand, long continued, and the application of heat are its best remedies. Dr. Morton also has not noticed that difficulty of expectoration which constitutes one of the chief distresses of

the consumptive. Indeed, he has passed over the whole matter of expectorants. Just as bland demulcents, by forming an artificial mucus for the posterior fauces, allay the irritation which created a cough, so do acrid expectorants, such as senega, blood-root, &c., by causing irritation in these parts, provoke a more effectual effort to cough, by which the contents of caverns and the bronchiæ are dislodged and ejected.

Our author next adverts to various medicines and remedial measures employed in consumption. His remarks upon these various topics are valuable, as coming from a practical man, and for the most part correspond with those of other judicious observers. In a few instances we think he is disposed to attribute greater effects to medicine than legitimately belong to them. *Digitalis* is certainly one of the most popular palliatives in consumption, and has often doubtless stood in the place of venesection and severe topical applications. Yet we cannot consent to consider the following almost marvellous case as a fair criterion of the virtues of digitalis: we cannot help looking to some other cause rather than the medicine.

'A young married lady whose lungs are tuberculous, was bled on the 18th of February, 1833, by direction of a distinguished practitioner, who attended her in her accouchment three days after, which resulted favorably; but the cough, dyspnœa and fever, to which she had been subject, soon returned, and venesection was repeated on the 23d. The symptoms, however, remained unsubdued, and she was bled a third time on the 18th of March, but with no better result than before. On the subsequent day a blister was applied, but although it drew well it afforded no relief. Free cupping was then resorted to; but under all this variety of treatment, the symptoms in place of being mitigated, became much worse. Under all these circumstances I was requested to see her on the 26th of March. I found her with a hot, dry skin, very restless and unable to sleep; with almost constant cough and oppression, and a pulse beating one hundred and sixteen in a minute, strong and corded. I proposed the tincture of digitalis in doses of *ten drops*, one of which was given at *five*, P. M., and before *ten* o'clock at night, her pulse was reduced to ninety, a second dose was then given, and on the following morning the pulsations at the wrist were but eighty per minute. Half doses were continued thrice a day, for two days, and then discontinued, leaving the pulse at its natural standard. With the reduction of arterial excitement the fever almost disap-

appeared, and the cough and dyspnœa were rendered comparatively trifling. The lady has since made a long journey with benefit, and is now in the enjoyment of comparatively good health, though by no means free from the vicissitudes of her malady.' Our author does not overrate the value of this medicine in the very common and distressing concomitant of phthisis, violent palpitation. Dr. Morton's testimony is favorable to the trial of small doses of *iodine* and *prussic acid*. The latter is certainly a most valuable remedy in that irritable condition of the mucous membrane of the stomach, which so commonly attends consumption. When this medicine was first vaunted in this country as a specific for phthisis, it of course disappointed all who looked for its effects upon the respiratory organs — but as a remedy for gastric disease, as recommended in Dr. Elliotson's valuable treatise, it fully merits reputation.

Uva ursi and *sarsaparilla* are remedies on which our author bestows some commendation. We can hardly give them credit for greater efficiency than the hundred and one decoctions and syrups which are usually proposed by the patient's friendly visitors. This is not the case with *tonics*, the use of which has certainly appeared to act decidedly in checking the progress of the tubercular cachexy. They should be administered early in the disease, unless decided inflammatory symptoms exist. The existence of hectic does not contra-indicate their use. One of the best forms certainly is the solution of the sulphate of iron with sulphuric acid. *Narcotics*, including opium, of course, are among the most valuable of palliatives.

There is something very taking in the idea of a local application to ulcerated lungs in the form of *inhalations* and *fumigations*. But alas! disappointment is doomed to reign over all these hopeful experiments. Dr. Darwin's box and circular brush, by which a cloud of finely powdered medicaments is made to be respired, Dr. Beddoe's pneumatic practice, Sir Alexander's Crichton's tar fumigations, have all had their day, and must all be pronounced failures. Our author thinks well of the tar fumigation, and undoubtedly it has been serviceable in the catarrhal form of the disease, and in some cases where a great purulent discharge occurs from extensive disorganization. Sir A. Crichton recommends his fumigations in consequence of the supposed exemption from phthisis of the workmen in a large cable manufactory of St. Petersburg, the atmosphere of which is constantly impregnated with tar. Dr.

Dods, an English physician, recommends inhaling the aroma of tanner's bark, from noticing that this class of men are remarkably exempt from disease. We apprehend that both these physicians are mistaken as to the principal fact. We do not believe in either case, that the workmen are more exempt than other *adults* pursuing a laborious and healthy occupation. Dr. Morton has never seen a tanner in consumption ; we are sorry to say we have not unfrequently had it in our power to show him such a case. Still, however, it is a great point in the natural history of a disease, to note the influence of trades and occupations, and we would recommend to our medical friends an attention to this branch of inquiry.

Of the local applications to the thorax, Dr. Morton decides in favor of caustic issues to the infra-clavicular regions, and this at the commencement of the disease.

Dr. Morton has not given us his experience in regard to the use of mercury as an alterative in phthisis. This is the more to be regretted, as from his official situation, he must have seen many of those phthisical patients with worn out constitutions, upon whom the preparations of mercury, especially corrosive sublimate, in combination with sarsaparilla and vegetable tonics, operate so favorably. There is also another omission on a point upon which very little has ever been said, by experienced observers of consumption. We allude to the effect of a loss of one or more of the extremities in subjects of a tuberculous diathesis. There certainly have been some astonishing recoveries under these circumstances. We removed the limb of a boy for a strumous affection of the knee, last autumn, in whom the constitutional signs of phthisis were extremely prominent, and well nigh hopeless. In one month the whole aspect of the patient was entirely changed, and the cough and expectoration, frequent pulse, and every hectic symptom were entirely removed, and a complete restoration to health took place.

Dr. Morton's remarks upon *diet*, *clothing* and *exercise* are sound and judicious. Consumptive patients are to be protected by clothing, and to live out of doors as much as possible. This is the true doctrine. Whatever promotes the vigor of the constitution, does most in eradicating tubercles. And this remark brings us to the true criterion on the subject of climate. The patient is best off in *that climate* where he can live most out of doors. Our own climate is as good as any, when patients can bear to be exposed to it without taking cold.

Our author is sanguine as to the good effects of a sea voyage upon consumptives. He thinks it rare for such patients to die at sea, and believes that in the great majority of cases, life is prolonged by the voyage. We are obliged to dissent from this opinion. We have known repeated instances of death at sea among the consumptives who have been sent abroad, and cannot but regard the sea voyage as one of the perils of undertaking to change the climate. Dr. Morton's remarks upon the climate of different places are brief, but interesting.

In conclusion, we beg leave again to offer Dr. Morton our sincere thanks for the gratification his successful labors in this department have afforded us. He is entitled to the very high merit of a good observer, and an honest and sincere writer. He may be assured, that the impression his work has left upon the public is such a one as will insure a favorable reception to what may hereafter fall from his pen. A gentlemen of this city is engaged, we understand, in bringing out a translation of the valuable work of M. Louis on Phthisis. We have been anxiously expecting the forthcoming of this work, and are rejoiced that a taste seems prevailing in the medical world to acquire practical knowledge as to the causes, prevention and treatment of one of the most thronged avenues of death. —

P.

Case of Over-excitement of the Brain.

Communicated for the Medical Magazine,

By Edward Warren, M. D.

The following case is, perhaps, one of little novelty either as to the symptoms or the mode of treatment; but it was interesting to me, both on account of its happy result, and because I deem every thing interesting which relates to disease of the brain — to the mysterious connection between the mind and the body.

On the 20th of January last, I was requested to visit the son of one of my patients, a lad about nine years of age, whom I had previously noticed for his remarkable intelligence and vivacity.

His mother informs me that a few months ago, he was removed from the school he attended to a higher one, where his emulation and love of study were excited in the utmost degree.

All his time both at school and at home was spent in hard study. For several weeks past, he has appeared listless, dull, and languid, taking no interest in play, and averse to active exercise or exertion of any kind. He is much better, however, in the day than in the night; he cannot distinguish objects by candle-light, and he fancies he sees people who are not in the room, and strange objects of various kinds. His mother thinks his eyes are unusually dull and unnatural in appearance. The pupils, in fact, are largely dilated. His sleep is restless and attended with muttering, and the appearance of great distress. He has occasional headache, no appetite, tongue coated, bowels rather costive. On careful examination of the spinal column, I find no tenderness or other marks of disease.

I ordered him to be kept at home from school and from books, but allowed free exercise in the open air in pleasant weather. To take an emetic of ipecac, and afterwards a pill, nightly, containing a grain and a half of blue pill with a small quantity of opium. A gentle laxative when required. Diet to consist of light farinaceous food.

Jan. 24th. Health somewhat improved. Appetite better, but sleep and nocturnal visions as before.

Apply four European leeches to each temple; rub the back of the neck with antimonial ointment; take fifteen drops of tincture of muriate of iron, daily.

Jan. 26th. Much better. Appetite good. The leeches took away a large quantity of blood, and the pupils almost immediately resumed their natural appearance. Nocturnal vissions and bad sleep still continue.

Omit the pills. Take four grains of Dover's powder nightly.

Jan. 31st. Much better during the day. Sight in the evening as before. Sees nothing but a glare of light, and fancies he has leeches all about him. Sleeps better. Continue iron, and use the ointment freely.

Feb. 6th. Perfectly restored to his former health and spirits. Appetite strong. Well in every particular. Wishes to go to school. Directed him to be kept at home a week longer.

This case affords an instance of the manner in which the most interesting children, and those of fairest promise, may be destroyed in the usual course of education, by over-stimulating the brain. Had the disease been allowed to go on, and the

lad remained at school a short time longer, he must have fallen into that state of hopeless and complete exhaustion of the nervous and sensorial power, which forms one of the most melancholy spectacles the physician is ever called to witness.

Boston, Feb. 9th, 1835.

COLLECTANEA.

Hypostatic Congestion of the Lungs in Fever. By William Stokes M. D. — There is one lesion of the lung, not unfrequent in this disease, which consists in a congested state of the posterior and inferior parts of the lung, and is chiefly observed in persons who labor under great debility, and who have lain a long time on their backs. It is of importance to be acquainted with this, because there can be little doubt that though in all cases it is merely the effect of the fever, it may be, in many instances, the cause of death. You can easily conceive, that it might be the cause of death, when you recollect that extensive congestion of the lung will produce asphyxia, by obstructing the pulmonary circulation. This affection has got from Laennec the name of *peripneumonie des agonizans;* but I feel satisfied, that in giving it this appellation he has taken only a limited view of the matter, for it may come on long before the fatal termination of the disease ; in fact, it may occur in all cases where the patient has lain for a long time on his back, and where the fluids have undergone any amount of morbid change. Indeed, there seems to be some analogy between this affection and the discolorations of the skin of the back and nates which result, in some cases, from a long continuance of the supine position, and which may be observed in many other affections as well as typhus. If you raise a patient in a bad typhus, after having been in this posture for a considerable time, and examine the postero-inferior part of the chest, you will often find a degree of dullness on percussion, and perhaps some crepitus ; but if the patient continues in the erect posture for a little time, these phenomena gradually disappear, and the lung resumes its ordinary permeability, except in cases where the congested state has been of several day's standing. Avenbrugger was aware of the occurrence of this affection of the lung. In his remarks on the use of percussion in the exanthematous dis-

eases, he alludes to the occurrence of congestion in the posterior part of the lung, before the eruption makes its appearance. The celebrated Boyer has also alluded to this matter in his works. In giving directions with respect to the posture of the patient in case of fracture, he alludes to the probability of congestion of the lung from this cause, and dwells on the dangers likely to arise from long lying on the back. It would appear from some modern researches of M. Piorry, that some persons are much more liable to this condition than others, particularly those who labor under old age, weakness, or disease of the heart.

Now, suppose you have a case of typhus, in which the position on the back has been long maintained, and particularly if the patient be advanced in life, in a state of great debility, or laboring under organic disease of the heart, you should be on the look out for this congested state of the lungs. In some of these cases it has been found that local bleeding, counter-irritation, and changing the position as much as can be done, have succeeded in removing this condition; but in the vast majority of cases it has occurred in persons reduced to a very weak and exhausted state, and at a period when the fatal termination was fast approaching. We can therefore say little or nothing about its treatment. One thing appears certain, that although we cannot remove this affection, when once established in the last periods of life, we may do a great deal towards preventing its occurrence, and for this purpose nothing is of so much importance as *attention to position.* We know that it is the postero-inferior part of the lung which is subject to this mechanical hyperæmia and consequent solidification. Now, in the early stage of this affection, and in milder cases, we observe that this incipient congestion disappears when the patient is placed in the erect position, and from this we derive the following indication, that in all cases of typhus, where there is great prostration of strength, and where there is reason to suspect deterioration of the fluids, it is advisible to change the position of the patient frequently. You should be careful in making him lie on his side, changing his position occasionally from one side to the other, and in not permitting him to lie on his back. Four circumstances tend to produce this hypostatic pneumonia: first, lesion of innervation; secondly, the change of the fluids; thirdly, position; and, lastly, the want of proper action in the lung; for when the patient is lying on his back, the posterior part of that organ expands but little on respiration. If you then place him upright, or lay him on his face or side, you get rid, more or less, of the effects of position, and enable him to counteract the inaction of the lung, the full expansion of which seems to be a powerful means of relieving this apparently mechanical congestion. In many cases, too, I have found that the use of the cupping-glasses over the affected

part, followed in some cases with a blister, had the best effect in removing the affection. In the case of this hypostatic pneumonia in fever, it will generally be right to support the patient's strength, to give a little wine, and the decoct. polygalæ, with carbonate of ammonia. — *Lond. Med. and Surg. Journal.*

Composition of the Atmosphere.—M. A. Chevallier having been engaged for some time in discovering the composition of the atmosphere, gave in a lengthy memoir which he read before the Academy, the following results of his researches:

1st. Generally the atmospheric air of Paris, and also in many other cities, contains in solution ammonia, and organic matter.

2nd. If the water be collected that is deposited, in conquence of the coldness of the atmosphere, the presence of ammonia and organic matters is discovered in it.

3rd. The quantity of ammonia which exists in the atmosphere, is sometimes very considerable.

4th. The presence of ammonia is easily explained, in consequence of the production of this gas taking place under a number of circumstances.

5th. The composition of atmospheric air may vary in different localities, in consequence of a number of peculiar circumstances, the nature of the combustibles employed, in large masses, the decomposition of animal and vegetable matters employed, &c.

It is in consequence of these circumstances that the atmospheric air of London contains sulphurous acid, and that the air from the drains in Paris is impregnated with the acetate and hydrosulphate of ammonia. — *Lond. Med. and Surg. Journal.*

Singular Case of Idiosyncrasy. By John B. McDowell, M. D., of Baltimore. — We have personal knowledge of the following most singular case of constitutional peculiarity, and have painfully witnessed the development of the phenomena in the individual, during several operations of venesection. Sometimes the insignia of the affection are manifested very soon after the ligature is adjusted, preliminary to bleeding, and occasionally not until the operation is over.

When this patient is bled in the arm, the idiosyncrasy evinces itself in a very few seconds after the adjustment of the bandage; when in the foot, this is not the case. The last time that bleeding was instituted in this patient, the operation was done in the foot, and the train of features characterizing the idiosyncrasy did not appear until venesection had been gone through with, when, however, the phenomena were evolved in a distressing

degree. Spasms supervened, or they might rather be denominated tonic convulsions, as the contractions continued for a considerable length of time, and no alternate cessations of the spastic rigidity occurred. The development of the peculiarities commences ordinarily with a tingling sensation in the tips of the fingers, which sensation speedily travels up the arms, until they experience that feeling which we describe when we say the arm is asleep; this numbness of the superior extremities is soon succeeded by an absence of sensation in those parts; the inferior limbs are quickly sharers of the same state of things, the abdominal muscles are next involved, and lastly the muscles of the face; the patient meanwhile suffers no acute pain, there is no cerebral perturbation, indeed the sensorium commune is unaffected, with the exception of a false perception, which is produced while the symptoms are being dissipated, and when the patient begins to experience relief. There is an idea of a double thumb, one thumb upon the dorsum of the other, and powerfully compressed, as it were in a vice. We have called this a false perception, we ought rather perhaps to have named it a wrong sensation, not an illusory sensation, for the mind of the patient is not even momentarily imposed upon by it. The contractions, while their violence lasts, obtund all feeling in the parts which are the intimate seats of the spastic rigidity, the superior extremities remain sore for days after the distresing symptoms have gone off, and the tenderness is so definitely located, as to enable the patient to refer it essentially to the flexors.

Mr. McDowell supposes the proximate cause of this affection to be the sudden interruption to the transit of nervous influence by the bandage. — *N. A. Archives, Feb.*

Radical cure of Varicocele. By Dr. Fricke. — After pointing out the danger and disadvantages attending the method proposed by Professor Wurtzer, as well as that recommended by M. Breschet which was described in a preceding number of this Journal, Dr. Fricke furnishes the following description of a method which he adopted, and thinks infinitely more advantageous. — 'I took a common sewing needle of the proper size, and embracing a part of the scrotum with the left hand, so as to seize between my fingers one of the dilated veins, I transfixed with the needle, the scrotum and the vein, and brought out the instrument on the opposite side, also through the integuments and the coats of the vein. I then cut the ligature of sufficient length to tie, so as to include the subjacent portion of the skin, which, when the scrotum is left to itself measured about three fingers breadth in extent. I repeated the same operation with great facility upon two varicose veins, and so little pain was occasioned that the patient

remained seated opposite to me during the whole process. No bandage was employed, and the testicles were merely supported in the horizontal position by means of a small pad. Some tumefaction, redness and tenderness of the testicle supervened on the next day, when the thread was withdrawn. The tumefaction subsided gradually, and by the twenty-first day, three veins were obliterated and converted into solid indolent chords. The same operation was successfully practised by Dr. Grossheim in another case. — *Med. Zeitung.* — *N. A. Archives, Feb.*

Pineal Gland. — M. Wurzer, the venerable professor at Marburg, has recently analyzed the gritty matter found in the pineal gland, and has ascertained it to consist of carbonate of lime, phosphate of lime, iron, and manganese. Fourcroy and Vauquelin could never obtain more than phosphate of lime and animal matter; but M. Wurzer, having frequently repeated his analysis, is positive as to the results. — *L'Observateur Medical Belge.* — *Lond. Med. Gazette.*

M. Dupuytren's Munificent Donation. — It is the wish of M. Dupuytren to found a chair of Pathological Anatomy in the School of Medicine, Paris; and for this purpose he has allocated no less a sum than 200,000fr. (8000*l.*) It is to be hoped that this eminent professor will state explicitly how he would have his chair of pathology filled; for already we observe that some agitation on the subject has begun: the *pupils* gave got up a petition to M. Dupuytren, praying him to fix the nomination by *concours.* — *Lond. Med. Gazette.*

On the Stethoscopic Indications of Pregnancy. By James Thomas, M. R. C. S. — Since the publication of Dr. Kennedy's 'Observations on Obstetric Auscultation,' no doubt can be entertained of the value of auscultation, in ascertaining the existence of pregnancy at a period when all visible and tangible signs fail to satisfy the minds of the physician and his anxious applicant. It is a subject of rejoicing to the stethoscopist to witness the utility of his favorite instrument and companion daily increasing, and to see those who formerly affected to despise it now eagerly grasping and consulting it as an unfailing oracle.

Those of your readers who have not been in the habit of using the stethoscope in their midwifery practice, have neglected a means of acquiring much satisfactory information: for instance, during a tedious labor, the accoucheur is naturally anxious to know the exact state of the child, which may be immediately as-

certained by an application of the stethoscope from time to time, instead of trusting to the mother's account of the fœtal movements.

The pulsation of the fœtal heart varies from 120 to 150; but if the brain be compressed, the number will be much diminished. I had an opportunity of observing this in a case of protruded funis, that occurred some time since. When the head had entered the pelvis, during each pain, the pulsation of the cord fell from 150 to 90, and immediately on the cessation of the uterine contraction, again bounded away at its usual rate. I merely mention this to guard against error; as, if the compression be mistaken for the maternal pulse.

In cases requiring embryotomy, it would be a great relief to the operator's mind to possess certain knowledge of the state of the child. I recollect a case in point, in which, after the brain had been extracted, and the body removed, the funis was found to have sloughed and separated at the umbilicus; and I shall not soon forget the expression of delight that illumined the benevolent features of the operator when he beheld that proof of the child's having ceased to exist. It were useless to enumerate the circumstances in which auscultation might be useful in midwifery practice.

With respect to the placental souffle, its cause has not yet been ascertained. It is synchronous with the maternal pulse, and therefore cannot depend upon the fœtus. As there is no vascular communication between the uterus and placenta, it cannot be the result of the maternal heart's action. Is it not, then, possible that it is produced by the rush of blood occasioned by the simultaneous contraction of the returning vessels of the placenta? This idea is not without support. The funis has two pulsatory movements — one of its arteries, and another of its vein, which is felt obscurely beating for a short time after all communication with the child has been cut off. The calibre of the vein is greater than that of the two arteries; and thus a return of blood as quick as it was brought to the placenta, being rendered unnecessary, is there any reason why the same powers of constitution regulating the beats of the maternal heart should not equally regulate the contraction of the returning vessels of the placenta? — *Ibid.*

Claim of British Surgery to the first successful ligature of the Common Iliac Artery. — We have recently seen in the October number of the Medico-Chirurgical Review, a letter from Dr. Mott of our city, to the Editor, in which he claims the correction of an erroneous statement respecting the *first successful* ligature upon the common iliac artery. Zealous for the rights of our country,

we conceive that we are bound to express our opinion upon the occurrences which are connected with the letter in question, 'whereby hangs a tale.' We beg our readers to bear with us, while we lay before them a succinct statement of facts, to which many are doubtless, perfect strangers.

On the 15th of March 1827, Dr. Mott ties, for the *first time*, the *common iliac artery* of the right side, *for an aneurism;* the patient gets well, and on the 20th of May following, comes to see the Doctor in New York, a distance of twentyfive miles. (The man is still living, Dec. 1834.) The case was published in the Am. Jour. of Med. Sciences for May, 1828.

Subsequently it is copied into the Medico-Chirurgical Review, and preceded by these words, 'this operation, which throws into the shade every other of the kind yet placed on record, has recently been performed *with success* by one of our transatlantic brethren."

In the year 1830, Mr. Guthrie, an army surgeon of distinction, now surgeon to St. George's Hospital, and to the Westminster Ear Infirmary, publishes a book on the diseases of the arteries, and copies the case of ligature of the common iliac in his 365th page, *verbatim* from the American Journal of Medical Sciences, in which it first appeared, and adds very unaccountably, in the face of what he there must have read to the contrary, — 'Dr. Mott's case was fatal.'

We next find, by a reference to the sixteenth vol. part 1st of the Med. Chir. Transactions, that on the 8th of July, 1828, Dr. Crampton of Dublin, tied the common iliac artery *for aneurism;* but, having most unwisely put an animal ligature upon the vessel, it became macerated, and fatal hemorrhage ensued. Dr. Crampton, in the relation of his case, unhesitatingly admits the priority of Dr. Mott's operation; but, in the comment upon it, in the Med. Chir. Review, (p. 57,) of January 1831, occurs this dubious sentence — it is written, be it remembered, four years after a *successful* case in America, had been recorded in the same journal; 'but no man, we repeat, can venture to affirm, *it might not*, on particular occasions be *successful*, as well as justifiable.'

It falls, thirdly, to Mr. Guthrie to tie this vessel himself 'on the right side, *for a large gluteal aneurism.*' So says the Med. Chir. Rev. for January 1834, and to the notice are appended these words: 'thus has this most formidable operation been *successfully* performed, *for the first time*; and while it adds a wreath of laurel to the brows of the distinguished surgeon, it exhibits a splendid triumph of British Surgery.' Here we have exhibited the singular spectacle, of a distinguished surgeon persevering in his previous mis-statements, and looking upon himself as justly deserving of merit which belongs to another; and of a learned

reviewer, so far forgetting the past records of his own pages, as to give publicity to the error, of which twice repeated claim, Dr. Mott at length takes notice. Accordingly in a letter, to which few, if any will except, he asks of Dr. Johnson, a recantation of the erroneous statements in his Journal of January, 1834, and reminds him of the facts which his own Journal for April, 1828, contains upon the subject of the previous operation. The letter reaches its destination, and Dr. Johnson hastens to give it publicity.

But in the meantime, Fate had been busy with her shears; the patient of Mr. Guthrie, who 'on the 21st of January left town for Scotland in good health and spirits, and with a diminished tumor and absence of pain,' dies; and ruthless autopsy discloses the fact, that the disease for which the artery was tied, *is not an* Aneurism, but a malignant growth; and premature congratulation is changed to regret. Had the woman lived, therefore, for a number of years, the cases of Drs. Mott and Crampton would have been still the only cases in which the artery had been tied for *aneurism:* and Dr. Mott's the only successful one for *that disease*, and the *first successful of any!* — *U. S. Med. and Surg. Journal.*

Monstrosity by Inclusion. — M. Andre de Peronne recently presented to the Academie Royale de Medecine, the report of the case of a boy, aged seven years, in one of the testicles of whom, a cyst, containing teeth, was found. — *N. A. Archives.*

Dr. Pitschaft. — Dr. Pitschaft remarks, that he is acquainted with a young man, who has the pupils of his eyes very unequally dilated. That of the right eye is preternaturally dilated, while that of the left is very much contracted. The faculty of vision is equally strong in both, and at all distances. — *Hufeland's Journal für Praktisch Heilkunde.* — *Ibid.*

Annual Bill of Mortality for Boston, 1834.

Whole number of deaths 1554; of which 596 were under 10 years of age. There died from consumption, 256; intemperance, 40; small pox, 4; old age, 54; suicide, 11; poisoned, 3; drowned, 25; other casualties, 27; diseases unknown, 105.

Annual Bill of Mortality for New York, 1834.

Whole number of deaths 9,082; of which 4245 were under 10 years of age. Deaths from burns and scalds, 50; suicides, 33; drowned, 90; other casualties, 86; small pox, 233; intemperance, 110; apoplexy, 135; drinking cold water, 40; consumption, 525; scarlet fever, 418: measles, 212.

EDITORIAL NOTICES.

Botanical Practitioners.

A petition from 956 inhabitants of New York for the repeal of the laws relating to 'Botanical Practitioners,' has been presented to the legislature of that State. This petition is said by the gentleman who introduced it, to be the vanguard of one with 100,000 signatures. We do not doubt it, nor should we be surprised were the prayer of the petitioners favorably received and finally granted: it ranges under the popular banner, and its war cry is that of all radicalism, moral, political, medical, 'monopoly! monopoly!' The tendency of the day is in its favor, which tendency is to bring down the high and raise the low to the same level.

We do not, however, place reliance on legislative enactments for checking empiricism, nor dread serious consequences from their repeal. The public mind must be purified of much delusion and credulity, and the difference between quackery and science clearly demonstrated before any great good can be effected. In the meantime, every, even the slightest indication of countenancing empiricism under whatever aspect it presents itself, whether stationary or itinerant, from the cautious recommendation of 'Aromatic Snuff, or American Pulmonary Balsam,' down to open, barefaced collusion with avowed quacks, shall be frowned upon and visited with the severest penalty which the professional code can inflict.

Acarus Scabiei.

We acknowledge the receipt of a communication on the '*Acarus Scabiei*, latest from Europe.' Our correspondent will see that we have given in our last number, an account of the late discovery of this insect, and the consequent excitement among the savans, so nearly in substance like his own, that it would be superfluous to insert it. We regret exceedingly that his paper did not come to hand a little sooner, as we should have greatly preferred his scientifico-comical narrative for the amusement and instruction of our readers to our own

sober version. We are not quite so sceptical on this subject as some of our cotemporaries, who blow up the whole castle by stating, from what authority we know not, that the creatures presented as itch animals proved to be nothing but cheese mites. The subject to us is one of some interest, at least we must pretend so, since it is now a subject of general attention abroad, and, in the words of our correspondent, we wait for further advices with great interest. Since the recent researches, M. Raspail has drawn up the following comparative descriptions of the itch insect on the one hand, and the parasite of cheese and farina on the other.

'Cheese-mite *(Acarus)*. Corpus ovatum læve, thorace distincto. Pedes primo sex, dein octo sub thorace et circa tuberculum ovatum inserti; ambulacris orbati species; acarus siro, mite of the farina of cheese.

'Itch-insect *(Sarcoptes)*. Corpus subrotundum utrinqe quasi compressum, testudiniforme, stratum, supra dorsum papillis rigidis hirtum. Pedes octo, quatuor anteriores circa caput dispositi, et quasi palmati, quatuor posteri distantes, et saltem quatuor anteriores ambulacris præditi.'

Address introductory to a Course of Lectures delivered in Clinton Hall, New York, Nov. 1834. By G. S. Bedford, Lecturer on Obstetric Medicine.

The topic which the Lecturer has chosen, is the present organization of Schools of Medicine in New York, under which he considers that the best teachers are not likely to be selected. He dwells upon the admitted truth, that the standard of excellence of every institution should be the intrinsic merit of the instructors, independent of any external aid — he complains that the strongest certificates, presented to men entirely unqualified by education to judge of the merits of the applicant, will procure him a professor's chair, and advocates the mode of election by *concours* as in France. This abuse, if it be one, is not peculiar to New York. Indeed, we believe that in most schools, not even certificates are required, nor even vacant or created chairs announced, to afford an opportunity for applicants. There are weighty arguments which might be brought in favor of both the present and the proposed method. There may be bribery and favoritism in the one case as well as the other. Whether the complaints of exclusiveness and aristocracy, which have of late so agitated the

medical world be well grounded, or whether they be merely the envious cavils of the outs against the ins, time and experience will prove. The complainants must remember, that all aspirants cannot have places; and on the other hand, office-holders and office-makers must remember, that the public eye is upon them, and that merit does not always lie within the circle of convenience or interest.

The Philosophy of Medicine, deduced from Analzying the Constitution of Man into its legitimate Structure and Action. By Ezekiel Webb, M. D. Second Edition. New York, 1834.

Some time since, a book with the above title was sent to us. We have hitherto hesitated to express our opinion about it: but supposing this to have been the wish of its author in sending it to us, we proceed as in duty bound. We have not yet read the whole book, but we have read enough to form an opinion, and shall present two or three passages which we think will enable our readers to do the same. It will be perceived at once that the author is a radical. His first sentence is as follows.

'The science of medicine has been spell-bound by spurious systems of philosophy for thousands of years; to emancipate it from such inglorious incantatory domination, and present to the medical profession its true, beautiful, harmonious, total philosophy, we shall commence and proceed to the completion of our present work, (written expressly for the purpose of accomplishing these most desirable and important objects,) with asserting, and proving, to satisfactory demonstration, THAT THE NERVOUS SYSTEM IS THE WHOLE SYSTEM OF MAN, and consequently that the laws regulating this system, are the laws regulating all the vital phenomena pertaining to the total organization of man.'

* * * * * * *

'It (his self-evident proposition which clears the way for unstanding at once the whole philosophy of religion, that is, by and through the most refined and perfected operations of his material organization,) it at once removes and abolishes all the visionary speculations of all the metaphysical theologians who have enveloped the moral and religious nature of man in thick and impenetrable darkness since the creation.'

'We repeat our conclusion, therefore, that until morality and religion are recognised, and legitimately applied, amongst the nations, through legitimate education, based on the legitimate knowledge of the constitution of human nature, mankind will never reach such universal regeneration, as Deity has made

them capable of reaching, and designed them ultimately to reach.'

The work appears to be throughout of a similar stamp. In short, we never read a more dictatorial, egotistical, *unphilosophical*, mystical, and bombastical work; and our principal motive in introducing the above passages is, to afford examples of what an extent of absurdity a man may go to, when he may honestly think he is furnishing the true key of philosophy, and opening the eyes of his cotemporaries and successors to all the errors and follies of his predecessors; and how he will run into the extreme of the very errors he proposes to correct. We know not the man, nor his standing in the profession; we speak only of the book, and believe we speak impartially.

Elements of Hygiene. By Robley Dunglison, M. D., Professor of Materia Medica, &c. in the University of Maryland.

This work has just been received for sale by W. D. Ticknor. We have merely looked at its contents, and mean to employ the first of our leisure time in *studying* it throughout. It embraces topics which are of interest to every individual, such as the atmosphere, food, clothing, exercise, sleep, &c. These are subjects which the health and comfort of every man obliges him to discuss, and about which he seldom thinks of asking professional advice. It is a book, therefore, interesting to the general reader; and however popular and useful may have been the unrivalled work of Dr. Dewees on Children, we hazard little in predicting, that this work will be still more extensively sought and read. Diseases are comparatively seldom the result of sudden causes; such, for the most part, only bring to issue derangements which have long been in a process of gradual development by deviations from the rules of Hygiene. It is astonishing, therefore, that more attention is not paid to this branch of medicine. Physicians are daily placing more and more reliance upon diet and regimen as means of curing diseases: — of how much greater avail may they be in forestalling and preventing them. We hope to enter more into detail hereafter.

Small Pox in Roxbury. — This disease has appeared in Roxbury, near Boston line. Six or more cases have already occurred. There is pretty good evidence to believe, that an Irishman vaccinated his whole family with small pox virus, and thus the disease was propagated.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."— WILLIS.

SELECTED ARTICLES.

On regulating the Bowels in Diseases of the Pelvic Viscera.

From a Clinical Lecture, reported in the London Lancet,

By Mr. WARDROP.

Every practitioner must have frequently felt embarrassed and disappointed in his endeavors to regulate the function of the large bowels of patients who suffer from diseases of the rectum, as well as those of the adjacent organs,— the bladder and the uterus.

In most of the diseases of these parts, if the bowels be allowed to become constipated, there is usually more or less suffering, sometimes indeed severe agony, before the rectum can be unloaded of all its feculent contents. On the other hand, when, in such cases, purgative medicines act too powerfully, great irritation and uneasiness are often excited throughout the whole of the pelvic viscera.

These remarks on the baneful effects either of constipation or of purging are particularly applicable to those who are suffering from diseases of the rectum, and those in whom it has been necessary to perform an operation on that bowel, such as laying open a fistula, or removing a hemorrhoidal tumor.

Under these circumstances not only does the patient suffer much pain in evacuating the rectum, particularly when its contents have been allowed to accumulate, and to acquire much consistence, but the pain of the disease is, in many instances, very much aggravated. This is the case also in those who are afflicted with diseases of the bladder and uterus. The contiguity of these organs with the rectum, and the connexion which they have, more or less, with each other, both in their functions and their sympathies, cause the diseases of the urinary and uterine systems to be much influenced by the state of the large intestine.

Now there are some purgatives which have a much less irritating effect on the rectum than others, and these medicines are usually given in such cases. The common electuary of senna, manna, castor oil, magnesia, tartrate of potash, and the various neutral salts, are all employed in appropriate doses for the purpose of keeping the contents of the bowels solvent; whereas, in diseases of any of the pelvic viscera, aloes, and those medicines which excite the action of the rectum in particular, are carefully avoided.

With every precaution there often is, however, great difficulty in managing the bowels in the disease of the pelvic viscera; and a patient who one day suffers from the pain of evacuating hardened feculent matter, is, on another occasion, irritated by the too severe action of a purgative. Neither can the peculiar effects of an enema be applicable to such cases, the pain and nicety required in using the instrument rendering it quite inadmissible.

Having accidentally become acquainted with the effects of a purgative to which none of the objections now mentioned are applicable, and from which I have, in a great number of instances, derived the very best results, I have thought it worth while to mention it. The purgative I allude to, is a combination of magnesian salts. It is an old formula, consisting of the carbonate and sulphate of magnesia, dissolved in a bitter infusion, or in peppermint water. The proportions which I am in the habit of employing are, two drachms of the sulphate and half a drachm of the carbonate for a dose.

When taken in the morning, a cup of weak tea being drunk an hour afterwards, this draught generally produces a more or less copious evacuation, but with this peculiarity, that the feculent matter is always discharged in a very liquid state, and in place of any expulsive effort being necessary, the patient is

generally compelled quickly to obey the stimulating effect of the medicine. A great advantage of this purgative also is, that its effects on the upper portion of the intestinal canal and stomach are often beneficial, and as it seldom creates any feeling of depression or debility, it can be freely repeated. To some, the virtues which I have attributed to this particular combination of magnesian salts may appear exaggerated, but men of experience are well aware how often particular effects are produced by particular combinations of drugs, and also from different doses of the same medicines, all which, though they cannot be explained, are not the less manifest. The combination of calomel and opium is well known to have a very different effect, either from calomel or opium when taken singly; and a small dose of calomel may purge the bowels violently, and irritate the whole system, whilst a large dose will often arrest diarrhœa, or act as a sedative.

In the practice of medicine we ought indeed to be satisfied with accurately observing the results of particular doses and particular combinations of drugs, and not allow the mind to be warped by any hypothesis, or presume to reason on what will be the effect, or explain the *modus operandi*, of any particular quantity or combination of medicines.

I have been induced, at the present moment, to make these remarks on the importance of evacuating the bowels, without creating irritation or pain when the pelvic viscera are diseased, as I shall frequently have occasion, when making observations on these diseases, particularly to refer to the benefit which may be derived from the use of this particular purgative.

Sir Charles Bell's Clinical Lecture on Cancer.

From the London Medical Gazette.

Of the period of Life at which Carcinoma appears in Woman, and the Management of the Female Constitution when threatened with Scirrhosity and Glandular Enlargement.

I am of opinion there is a family peculiarity of constitution connected with carcinoma. A woman in whose family scirrhus has appeared ought to be more than usually cautious in attending to her health, and to the influence of the uterine change upon her constitution as she advances in life.

Secondly, there is, in my mind, a strong alliance between scrofula and cancer; so that in a family in which struma is inherited, there ought to be especial attention paid to the women of that family at the change of life — by which we mean when menstruation ceases.

Carcinoma, like some other diseases, is too apt to prevail in the descendants of such as have suffered from the disease. A person will come to you with paralysis, saying that his father suffered from this disease at the period of life in which he now presents himself; and the same is the case even with dropsy: a person will come and say, 'my relatives have suffered from this complaint.' So will a woman with a tumor which threatens to be carcinoma, come to you and say, 'I am anxious about this; it makes me unhappy, because my mother and my aunt suffered from what I am now threatened with.'

4thly. The age at which the disease prevails, is from forty to fiftyfive; and it is more acute, runs a more rapid course at fortyfive, than from fiftyfive to sixtyfive, or seventy. It is very important for you to notice this. A woman presents herself to you as a patient, with a hardness in the breast, threatening carcinoma. The disease will run more rapidly if she is only thirtyeight or forty, than if she be decidedly an old woman. For example: there is an old woman, a patient of mine, in the cancer ward, with an enormous carcinomatous tumor, now extending over all the side. She is very old; but if she had been forty, these horrid tubercles would have burst into open cancer, and she would have died long since: whereas she has seen that ward filled and emptied many times, and now remains in a tolerable condition of health.

5thly. In men, as well as in females, we observe a climacteric period; and it is well to notice what takes place at this period of life, exclusive, I may say, of the uterine system, which claims such importance in the other sex. That condition, then, is marked by a gradual decay of strength, a listlessness of mind, an incapacity for business, and sometimes great depression of spirits. The secretions are disordered; and irregular slow fever affects him; there is thirst, but no want of appetite; and there is increased action of the kidneys. At such a time, the mind should be supported by friendly and social discourse, travelling, and change of scene; the digestion should be watched, and exercise enforced. But if, instead of this, when these symptoms prevail, some family misfortune or real cause of distress should unhappily befal him, ten to one but he

will not be able to bear up against it: some organic disorder will begin to show itself, with a certain indefinite change in the countenance and general expression. Happily, however, this condition of the general system very often passes off, and vigorous health is again established.

6thly. By this digression I mean to infer, that in women the change of constitution may not at all times depend upon the uterine influence, but may have a source more akin to what takes place in the other sex: yet I must affirm, that in ninety of a hundred instances of constitutional disturbances at the period alluded to, when the menstruation ceases, the ovaria and the uterus are the sources of disturbance. Nature has established a reciprocal action between the uterus and mammæ, and though widely apart, they are intimately united in sympathy. The parts in the pelvis are joined by juxtaposition, sympathy, and community of circulating vessels, but sympathy alone affords an equally intimate union between the ovaria and mammæ. Every change in the ovarian circulation has an influence: every change here, as you well know, or ought to know, has its effect upon the mammæ, the first period of puberty and the final period of change — menstruation, conception, quickening, delivery — all have this influence. In all these different conditions, the changes in the uterus and ovaria are attended with, or marked by, pain and turgescence of the mammæ. At the final termination of ovarian action — that is, at the 'turn of life,' — the irregularity of menstruation produces a most decided influence on the mammæ. It is this which lays the foundation of the disease we are to consider; yes, it is the disturbance of the uterine system which, at the change of life, produces irregular flushings of the face and depression of the spirits: we may see the individual flush, and hear her sigh; she then breaks out into perspiration, and the little paroxysm is over. The condition of the female system is said to subject them to inflammation and congestion at this time — to rheumatism and to erysipelas; and all this I can very well believe.

The number of young women, from the age of sixteen to twentyfive, who have presented themselves in the hospital with lumps in the breast, is fully equal to those who have presented themselves at a later period of life with carcinoma. We have to trace an influence of the same kind in both — namely, irregular uterine action: that which in the early period of life produces strumous lumps in the breast, at a later period of life will lay the

foundation of carcinoma. I take an example from the papers before me. A young woman presented herself in this hospital with an enlarged hard mamma, in the expectation that we would perform the operation of amputation. When the breast was examined, we declared it was not necessary to operate ; that the swelling, from her age and her constitutional character, was more allied to struma than to carcinoma ; and we did not, and would not, operate ; upon which it came out, that, in the country, they had taken off the other breast for a complaint exactly similar to that for which she now presented herself. The young woman was in these circumstances taken into the hospital and from the remedies employed, by and by the tumor subsided, and she was dismissed cured. This is a remarkable case, but you will see many similar ; you will see patients sent up for operation who are suffering from strumous enlargement of the mamma : hence you are to understand that, according to my experience in these matters, the uterine irritation that takes place on the first appearance of change, produces swelling and disturbance in the mammæ, and that such disturbance will leave after it a tumor of a strumous character ; but the irregularity of uterine action taking place at forty or fifty, will not be attended with strumous disease, but with carcinoma — tumors of a worse and less manageable nature. Now this being the truth, it is very important that you consider it, otherwise you will be performing the operation of extirpation when it is not necessary ; and you will observe, that the operation for carcinomatous mamma is considered with a more favorable eye by surgeons in general, because they do not operate in the true carcinoma, but in strumous disease of the breast. They take off scrofulous disease of the mamma, and the patient recovers, and lives long ; whereas, were they only to operate when there is true carcinoma, their opinion would coincide with mine, they would be less sanguine — I mean in regard to the favorable termination after the operation of amputation.

What you see in the breast of a female, you see in the glands of the other sex. Suppose, for example, that there is a sore throat, or inflammation in the fauces, and that it produces a swelled lymphatic gland on the side of the throat ; in a young man this becomes a scrofulous swelling, and abscesses, such as you see every Thursday among the out-patients. Now contrast these with the case which you have just seen in Hartford ward, where the patient has a scirrhous tumor in the neck. He tells you he had a quinsey — that was internal inflamma-

tion, producing action or excitement in the glands of the neck; and these, in a man fifty years of age, have taken a carcinomatous character, and he is beyond our means of giving relief. The parallel, then, you see, is a just one.

In the next place, as there is a coincidence in time, so is there a considerable resemblance in the nature of the disease which fixes upon the ovaria and the mammæ; the difference is chiefly in their position as internal or external parts. This is a very interesting inquiry, because it embraces an extensive view of practice. The scirrhosity, I say, and hydatid tumors, to which the ovaria are subject, would become uncontrollable fungated ulcers were they attached to the skin. On the other hand, many of the hydatid and encysted tumors which infest the mammæ, and are the forerunners of so many distressing cases of ulcer and ill-conditioned sores, if they were seated in the ovaria, being internal, would smolder, and partake of a chronic state that would hardly interfere with the term of life.

Let us take our illustrations from some other departments of practice. You know familiarly well that an abscess makes its way to the surface. Why is that? It is not enough to say that it is a sort of intelligence, as Mr. Hunter would describe it, by which the disease makes progress to the evacuation of the matter: that is not the case: it is the consequence of a more general law, that action is more easily excited, and goes to a higher degree, in the surface, than in the deep part; and the side of an abscess which is next the skin will enter more readily into inflammation, ulceration and absorption, than the part which is deeper seated, or removed from the surface. The consequence of this law is, that suppuration tends ever to the surface; and you must have remarked, that when an abscess has been in a chronic state, being internal, no sooner does it reach the skin than it becomes highly active — that is to say, the skin inflames, it is rapidly absorbed, and the abscess points and discharges. If you be not convinced of this, take the example of an inflamed lymphatic gland. Suppose there is disease of the penis, and that, either by irritation of a lymphatic gland, or by an absorption of matter, it involves an external gland of the groin in inflammation; the consequence is bubo; but, as anatomists, you are aware that lymphatic vessels go round under the pubes, and into the pelvis, yet you never heard of a bubo within the pelvis. Even authors upon this part of anatomy and pathology tell you that there is no such thing as an inflamed and suppurative gland within the ab-

domen. They attribute it to Providence. I admire their tone of mind; but without profaneness, I would say the immediate cause is, that the gland is internal, and does not inflame — is not subject to inflammation from a degree of irritation which would cause suppuration in a gland lying immediately under the skin. There is a parallel case in the instance of a ball. A ball, as I stated last week, will accidentally remain some ten or fifteen years in the body, lying close to the vertebræ; but who ever heard of its remaining so long under the skin? No; it will remain quiescent, if deep, producing no reaction; but it will not remain twentyfour hours without inducing inflammation, if it be just under the skin. The uterus and ovaria are internal, the mamma is external; and when disease at this climacteric period affects the body of the uterus, it will long remain chronic or quiescent; if it influence the os tincæ, the more external part, it will be more active and more destructive. But even here its rapidity will not be equal to that of the same disease affecting the mamma.

These remarks lead you to comprehend the reason of my very great desire to be particular in

The Mode of Dressing the Breast.

It is to make the mamma, as far as possible, an internal part, or, in other words, to protect it against the changes of temperature, and to give it a gentle and uniform support, and to soothe, not to excite, the skin over the gland. I shall now minutely describe the manner of dressing, believing that it is a lesson of the first consequence to you.

Whilst the dressings are preparing, let the breast be covered with a flannel fomenting cloth wrung out of a warm lotion, (a drachm of extract of conium in a pint and a half of water;) prepare a soft ointment of the empl. thuris and extract of conium, or of mercurial ointment, or with a proportion of the ung. hydriod. potassæ; spread this on long slips of lint, and lay these slips over the tumor in all directions, covering it completely; cover this dressing with a piece of oiled silk, making a little slit for the nipple; over this lay a layer of cotton wadding, so that the breast be uniformly compressed, and the nipple guarded. Finally, swathe the bosom, and lay on each side of the neck shoulder straps, or the split cloth. Do not be satisfied with recommending the arm to be kept still, but put a turn of ribbon round the arm, and pin it to the side, or let the hand rest on a ribbon round the neck. (A bustling

woman will quite defeat your purpose, by the incessant action of the pectoral muscle under the mamma.) The dressing should remain for three or four days.

The best example of the happy effects of this mode of dressing the tumor of the mamma, combined with proper treatment, you have in a woman who occasionally waylays me in the Northumberland ward. The reason is, that she was long an inmate of that ward, and is known to the nurse. Now that patient had an eularged, hard, and knobby breast, which was by all of us condemned to operation. She refused to submit, and I was constrained to limit my treatment to the mode I have described, and the result has been a complete softening of the gland, and a disappearance of the 'scirrhus.'

I was led to these remarks on the local treatment of the tumor, by observing that disease of the ovaria or uterus very generally accompanies the disease of the mamma; so that when you see a scirrhus tumor in the mamma, you may be almost certain that there is more or less of the same disease in the uterus or ovaria; but it is not noticed in practice, because there are no prominent symptoms during life. There is scarcely a case, however, in which the patient dies of mammary disease, where you do not find a diseased state of the uterus or ovary; and therefore, when you come to the question of amputation, you do not merely judge by the appearance of the mamma, by the condition of the glands of the axilla and neck, by the countenance and general appearance of the patient, but also by those symptoms which indicate uterine disorder; and although there be no diseased glands in the axilla, and nothing very remarkable in the woman's countenance, yet if she be complaining of pains in the loins and hips, and down the thighs, which are indicative of disturbance in the uterine system, I would advise you not to operate, but endeavour to alleviate the symptoms.

These remarks lead to a distinct object in practice — viz. to remedy the defects of constitution, and allay the irritation of the uterine system.

I have mentioned the constitution of men at that period of life, and may here notice that prostatic disease offers a fair parallel to glandular disorder of the female, and that it is one of the sequelæ of the same condition. I take this illustration. A young man comes to you, saying that he has got disease of the prostate; you are at once aware that he cannot be the subject of the "prostate disease"—that disease to which old men are

subject. In the young man, the prostate gland becomes the seat of a scrofulous abscess, and it will wear out the constitution as effectually as a scrofulous abscess in the lungs; but he is not subject to that scirrhosity which is peculiar to advanced years, and therefore you may give him every assurance that he has not the prostate disease. But if a man of 70 comes to you in the same circumstances, complaining of disturbance at the neck of the bladder, and frequent discharge of urine in small quantities, and if he have neither the symptoms of stone nor a stricture in the urethra, you may be almost assured that prostatic disease is commencing, and that it is of a formidable nature.

I mean by this to remind you, that in men, as well as in the other sex, there is a disease peculiar to a certain period of life, and of the most serious nature — a disease which never takes place at an early period.

In regard to the constitution, to me, who in early life knew the merit and the excellence of Dr. Plummer's pill and diet drink, and its habitual use by the old practitioners of Scotland, it was a matter of surprise, about twenty-five years ago, to see the same treatment become quite the fashion here, under the authority of Mr. Abernethy's name. That gentleman had the unhappiness, I must say, to estimate public opinion very low; and singularly enough, the manner in which he marked his contempt, became the source of increasing popularity. I speak of this, because I am apprehensive that the admiration of Mr. Abernethy's practice may have gone too far, and produced a sort of re-action, and it may now be too much neglected; but it is founded in extensive observation, and is not to be lost sight of: you must not lend yourselves to mere fashion in these things. The system of old Dr. Plummer, which was to give his well-known pill at night and his diet drink, and to send his patient to the mountains to drink goats' milk, was effectual to the destruction of a variety of local diseases; and every apothecary in the northern part of the island knew this well long before Mr. Abernethy took it up; and therefore, from that long experience, and from the experience and authority of Mr. Abernethy, you must not throw it lightly aside. The blue pill and the bitter purgative draught are good; the compound calomel pill and sarsaparilla are good, for they are the means of exciting secretion in the bowels, at the same time that they soothe them by removing what is irritating. The bowels may be disturbed, and yet neither pinch nor give pain in any way; but

they may produce irritability of temper and of constitution, or nervous depression, and thus lay the foundation of organic disease.

With regard to the great leading cause of all, in these diseases of women — viz. irregular and disturbed menstruation, it may be taken as a pretty general rule, that it must be treated by cooling regimen, the tepid shower-bath, the warm salt-water bath, friction of the whole body and loins, gentle exercise in the open air, and change of residence, if circumstances will admit of it. Travelling imposes on the rich and indolent a condition the most nearly approaching to that state of nature and of freedom which the peasant has by necessity. There may be found, in the cases that I lay before you, notices of women of corpulent habit, and in apparent health, but with pains in the breast, enlargement of the belly, sickness, and suppression of the menses; and such women, unless much care be taken, will have confirmed scirrhus. I will select a case of this, and give you a remarkable instance, because it is imagined that these sores never heal.

"Jemima Malone, 45 years of age, the mother of ten children, the youngest eleven years of age, four years ago first perceived a lump in her right breast, of the size of a marble. In the course of a year it had acquired the size of an egg. Two years after its commencement, she applied at St. George's Hospital, where she was recommended to have the breast removed; but to this she would not consent. The nipple at this time was not drawn in. About six months ago, the breast became discolored, numerous small lumps formed round the large tumor, and soon afterwards it became ulcerated and painful. The ulceration has since gone on gradually increasing, till it has attained its present immense extent. The tumor occupies the greater part of the right side of the chest; the central point is deeply ulcerated, and sloughing around the ulcerated part, for about two inches. The skin is of a dark blue color, and studded with small hard tubercles."

Gentlemen, you will at once acknowledge that this is an aggravated case of carcinoma. The report proceeds—"She still menstruates, and has always done so regularly: at the period of menstruation the breast bleeds. She has no difficulty in breathing, but has constant dryness of the fauces, which awakes her in the night with sudden choaking."

Now the case of Malone proved to be one of the most remarkable that has occurred for a long time, from the complete

closing and cicatrization of one of the most malignant cancers. The circumstances of the case are still fresh in the recollection of every body. Her name appears in the books from June to November, 1830. When this patient came to the hospital, she was remarkably stout, with a full, ruddy face, altogether of the robust landlady appearance. She had this open cancer in one breast, and the tumor was of unusual size — fully half the size of the head. The nipple was eaten away by ulceration; a deep foul sore occupied the centre; the edges of the sore were abrupt, rugged, tuberculated; altogether this was the worst and most formidable case that the surgeon could well look upon. The remarkable circumstance was, that in the course of a few months the woman's whole appearance became altered; and it was obvious that a great constitutional change had taken place. She was always a timid and effeminate creature in disposition; but the robust, blown appearance, left her completely, and she became spare and thin, and her face pale, having now more the look which belonged to her real disposition. In the meantime a most astonishing change took place in her breast. The great mass fell low, the huge crater closed and gradually cicatrized, the edges of the ulcer also healed, and the appearance is now very remarkable. There was still the excavation and rugged edge, but the skin whole, and there was every appearance of a complete subsidence of that action which some months before seemed so very formidable.

It will be anxiously inquired, what was the treatment in this case. There was no specific medicine, but only that system pursued which I am anxious you should follow in these cases. I have already mentioned to you a patient who occasionally comes here on a Thursday, who had a tumor which, on a full consultation, was condemned for operation; but it has entirely disappeared, and there is now no disease whatever. These cases are important, because they furnish us with some hope that, even when circumstances are exceedingly bad, there may be an amelioration and cicatrization of the tumor.

When the menses stop suddenly, and return with a hemorrhagic character, we can but suspect some disease already commenced in the uterus, and the *flow of blood* — I mark that with emphasis — with unusual pain, proceeds from this source. You are aware that there ought to be no clot. This is a condition which requires the utmost attention. Camphor in pretty full dozes, with extract of hyoscyamus and opium, will allay the pain. It certainly is not desirable to see the menses intermit;

small bleedings, therefore, are proper enough at this period, and used to be more frequently practised than now. I confidently recommend you to bleed from the hermorrhoidal vessels, by leeches, once a fortnight. The warm salt-water hip bath has a very soothing influence, when there is a pain shooting from the back to the pubes, and tenderness of the spine, which is a very frequent attendant on uterine irritation. Warm fomentations, with anodyne extracts in solution, are proper, applied not only externally, but to the os tincæ and to the vagina, by a well-contrived injecting apparatus: this greatly allays irritation. For example, the mucilage of quince seeds and extract of hyoscyamus or conium, tepid, form an excellent injection for the vagina. The pipe should be passed through a piece of sponge, which makes the injection easy, and does not disturb the parts within. If there be any indication of disturbance in the mamma, a seton or issue should be made in the arm. With respect to the bowels, it may sometimes be proper to use aloes and other warm purgatives, which operate on the rectum and hemorrhoidal vessels; but sometimes they are to be especially avoided, and rhubarb, senna, and jalap, to be preferred. In cases of threatened carcinoma, a change of diet is advisable — for nothing is so serviceable in inducing a change of constitution. Coffee and milk for breakfast; rice-milk, with cinnamon, in the forenoon; a pudding made with an egg for dinner, and milk, or soda-water, and a biscuit or rusk, in the evening, is enough of nutriment. If our patient has been in the habit of taking meat at dinner, a heavy supper, and something comfortable on going to bed, which is the way that the principal part of the patients live who come here, we may expect present advantage from such a mode of living as I advise. The treatment that is adopted, local and general, with advantage, in cases of struma, is also proper when there is a threatening of carcinoma. These were the circumstances that were attended to with such benefit in the cases alluded to.

For the reasons I have assigned, it is my duty to enter very fully into this subject, but I will give it in small and repeated doses, so that you will not be wearied with me. I may devote half an hour to it occasionally, while at the same I attend to the common practice of the house.

Affection of the Fifth Nerve.

Communicated for the Medical Magazine,

By Charles T. Jackson, M. D.

Case of J. B., aged 72 years, formerly sea-captain, subsequently a merchant. His general health has been good, excepting that for many years he was afflicted with dyspepsy, for which he underwent a course of treatment by emetics, and afterwards of cold shower and warm baths, with a diet of animal food, with bread. For the last five years has been in good health, as regards muscular strength and the functions of nutrition. Four years since, he was attacked by a sharp, burning, stinging pain, arising from the left side of the nose, and extending to a spot directly over the sub-orbitar foramen. He had very severe headache on the left side of the forehead, over the eye, which extended to the orbit and to the temple on that side. Severe burning pain extended from the nose near to the mastoid process of the temporal bone and into the ear. The teeth on the left side of both jaws became extremely painful, and he had two of them extracted without relief. The pain continued to increase, and extended down the neck.

He consulted several physicians in Boston, and tried at first extract of strammonium, one grain in a pill, of which he took two per day. The pills gave him some respite from pain, producing dizziness, but it returned as soon as the narcotic effect subsided. Carbonate of iron, in high doses, was then tried with some relief to his sufferings, but it soon failed to produce the desired effect. The face was vessicated over seat of pain, without any relief.

I saw him several times in the course of the summer and autumn of 1833, although he did not become my patient until the February following. When I first saw him, there was a swelling of the cellular membrane under the left eye, a bright florid tint on the skin over this tumor, and there was a peculiar trembling or irregular quivering motion of this part. The motions of the face were, however, perfectly unimpaired, and the tongue was put forth without the least embarrassment, and in a direct line. The eye could be opened and shut as usual, or turned in its usual manner. The sight was not impaired, but was equal to that of the other eye.

There was a swelling of the mucous membrane of the mouth over the gums, upper jaw, and cheek of left side. Captain B. suffered great anxiety lest the tumor under the eye should be a cancer, and was several times ready to try the effect of the cancer plasters, which are sold by the quacks, or to have the tumor cut out by a surgeon. I was satisfied, however, that there was nothing cancerous in the disease, but that it was one of the effects of the nervous disease under which he was suffering, and did not, therefore, advise an operation.

In February, Captain B. visited me in Boston. The day was cold, and I observed that the left side of the face was of a much lower temperature than the right, and that the tumor under the eye was congested with blood, and of a deep livid color. He confirmed my observation, by stating that the diseased side of the face could not stand the cold like the other. The swelling of the mucous membrane of mouth had increased, which renewed his alarm, lest the disease should be of a cancerous nature. At this time he complained of a pricking and burning sensation in left side of nose, and much pain in teeth and jaws. He was directed to take sulphate of magnesia, and to apply three or four leeches over the swelled and painful parts, and to follow a regulated diet. May 2d, I saw Captain B. again, he was somewhat relieved by the leeches and the regimen which he had followed for some time, with other medicine directed by his family physician at home, as circumstances required. He had at that time a sense of '*burnt feel*' on the left side of tongue, numbness or want of sensation in that side of cheek, and in the nostril, and all that side of the face extending exactly from the median line to the ear, and up the forehead, back five or six inches from the frontal protuberance upon the head. The hair upon this part of the head feels to him '*like a wig*.' The sense of hearing in left ear is diminished, sense of smell in left nostril imperfect, but he perceived and recognised aqua ammoniæ when it was presented to this nostril, the other being closed.

A probe thrust down upon the membrane of the tympanum in the ear, is felt as usual. The precise limits of sensation were determined by the point of a sharp probe pricking the skin until the sensation was not perceived. Then going from the part affected, the boundary of loss of sensation was accurately ascertained. He states that he does not feel his razor as it passes over the left side of his face, nor when he cuts himself does he know it, until he perceives blood.

The conjunctiva membrane of the eye was congested with blood, and there was a cuticular ulceration of the cornea directly over the pupil. When the finger is put into the eye, there is no pain, nor any sensation felt by the patient. Having consulted the surgeons of the Eye Infirmary, I divided the blood vessels of the conjunctiva with a scalpel, to discharge the congested blood. During this operation, not the least pain was felt by the patient, who declared that he did not feel the instrument.

He was directed to apply a blister to the occiput, and three leeches to left temple. His diet was regulated, and two grains of submuriate of mercury combined with a quarter of a grain of opium, was directed to be taken morning and night, to be followed occasionally by sulphate of magnesia. I saw him again in July, when he thought his complaint was alleviated at first by the treatment, but it afterwards remained stationary. The ulceration of the cornea had increased in extent and depth. The surface of the ulcer was touched by his family physician with nitrate of silver, without arresting the morbid action.

Sept. 17th. Saw Captain B. in Boston, at which time the ulceration of the cornea had entirely perforated that part, and the iris being pressed forward by the projecting tumors of the eye, adhesion had taken place between the ulcerated cornea and the iris by a false membrane which extended over the ulcer. This being an effort of nature, to save the contents of the eye from being thrown out, was allowed to go on. The right eye having been complained of, was examined at the Eye Infirmary, and found to have an opaque white spot on the retina, indicative of incipient amaurosis. Leeches were accordingly ordered to the right temple, and about that eye, and the patient advised a low diet. As he suffered at that time from a rheumatic complaint of the shoulder, I directed him to take five grains of colchicum root in powder combined with one grain of submuriate of mercury every three hours in the day, until relieved, and to take twenty drops of acetate of opium at night.

The patient, whose case I have just related, is a man of great firmness of character, and not in the habit of yielding to ordinary suffering; yet the pain in this disease was so severe, that he declared it was impossible to live, if it continued long without intermission, and it seemed to him 'as though he should go distracted.' I have endeavored, in collecting the

facts relative to this case, to exclude all theoretical considerations from it, reserving the *rationale*, for a separate place.

Reflecting on this case, it will appear that the disease must be seated in the posterior roots of the fifth nerve, or in that portion devoted entirely to sensation, for the motions of every part of the face were perfectly free and natural, which could not have been the case, had the anterior roots been diseased; for, according to the admirable researches of Sir Charles Bell, the anterior roots of this nerve are those of motion, while the posterior are for sensation, and one portion might be diseased without necessarily involving the other. That the disease is at the root of the nerve, in or close to the brain, will appear from the circumstance that all the sensitive branches of the nerve were affected, which could only be accounted for by referring its seat to that origin.

The direction and extent of the burning and pricking pains, which darted like lightning through the face, indicated the course, direction and extent of these nervous branches with far greater accuracy than the most delicate dissection could demonstrate them on a dead body; and it appears reasonable to suppose, that a study of their morbid phenomena would give us a better idea of their functions in health, than could possibly be obtained by any other mode of research. It is, however, only by the study of minute anatomy that we are able to account for such phenomena; and such preparatory study admirably fitted Mr. Bell for his splendid discoveries in the physiology of the nervous system.

When we reflect on the case before us, it will be remarked that the fifth nerve, becoming paralyzed in its sensitive portions, must also affect the functions of relation in those parts with external things, and with themselves. Thus the filament of the opthalmic portion of the fifth nerve, which supplies the external membranes of the eye, being paralyzed, that part suffered from ordinary exposure, so as to become congested, inflamed, and ulcerated, although not the least sense of feeling remained, as was proved by passing the extremity of the finger over it, and no pain was felt when the blood vessels were divided by a stroke of the scalpel.

The sense of 'numbness or burnt feel' in the left side of the tongue, shows that the sensitive branch of the fifth nerve which supplies it was paralyzed; and we observe that the patient was not sensible of the presence of food on that side of

the mouth. The left half of each lip was also devoid of sensation, as was the corresponding side of the nose.

The swelling of the skin of the face under the eye, and the diminished sense of smell and of hearing, appear also to depend upon the disturbance in the balance of mutual relation between the functions, as also may the want of power to regulate the temperature of the skin on the diseased side of the face, arise from a similar cause. The disease being seated so deeply at the connection of the nerve with the brain, rendered all chance of relief from surgical division of the nervous branches out of the question; and the advanced state of the disease when the patient came under my care, (his age being considered) gave but feeble hopes of successful cure. The method of cure pursued, is such as physiology would teach us was adapted to the case; and such as is recommended by Mr. Bell and other distinguished authors who have written on this disease. I had no doubt that the most effectual cure would be an entire paralysis of the sensitive root of the nerve, and such is the process now pursued by nature in this case, and the result is nearly obtained.

Contributions to Pathological Anatomy.

By E. Bartlett, M. D.

1. *Encysted Transformation of both Ovaries, with contained Hair.* — 2. *Ovarian Dropsy.*

Case 3. — Mrs. E. W., aged 53, died after a week's illness with symptoms of acute peritonitis. She had one child about twenty years ago, and has menstruated regularly ever since, her last monthly evacuation having occurred three weeks before her death. This function has been performed with pain during the last three or four years. Six years ago a tumor was felt just above the pubes, which continued gradually enlarging to the period of death. This growth was not attended with pain or soreness, and gave the woman little or no uneasiness.

On examination, the peritoneal cavity was found to contain a sero-purulent fluid to the amount of more than a pint. The membrane itself was preternaturally red, especially those por-

tions of it lining the inferior region of the abdomen and the pelvis. A hard, oblong tumor occupied the lower part of the abdominal cavity, extending down into the pelvis. The inferior surface of the tumor was slightly attached to the fundus of the uterus. The tumor, when removed from its connexions, was found to consist of two lobes, — one superior and one inferior, — surrounded and united to each other by several distinct layers of dense cellular tissue. The structure of the tumor itself was uniformly hard, and of a white color. It was six and a half inches long; its smallest circumference was ten inches, and its weight was twentyseven ounces. Lower down in the pelvis, on each side of the fibrous tumor, but not attached to it, and in the situation of the ovaries, was a globular tumor or sac, about the size of a goose's egg. On removing these bodies, it was evident that their coats were thin, and that they contained fluid. They were opened, and found filled with healthy looking pus, and a large quantity of hair of a reddish color. The principal part of the hair was matted together in the form of a ball, wholly unconnected with the inner surface of the sac. The hairs were from half an inch to six inches in length, most of them having one extremity very slightly bulbous or abrupt, the other terminating in a point. Their external surface had the same kind of rough, bearded structure which belongs to common hair, as was easily ascertained by the familiar process of passing them between the thumb and finger. Many of the hairs were attached with considerable firmness to the inside of the sacs, their extremities in some instances being inserted into a soft, reddish membrane lining the sacs, and in others, some portion of the body of the hair being passed under or into this lining, while both extremities were free and unattached. In one of the cysts was imbedded a small, irregularly shaped piece of bone. The walls of the sacs consisted of membrane about as thick, and nearly as firm as the dura mater. The uterus was apparently healthy. No distinct remains of the ovaries could be detected.

Case 4. — Mrs. R. died January 20, 1835, after a week's illness, with symptoms of acute pleuro-pneumonia of the right side. She was fiftysix years old, and had menstruated regularly till within six months. She had borne some seven or eight children. Some months ago she discovered a round tumor projecting between the pubis and umbilicus. She was unable to fix the precise time of its appearance, and had never paid much attention to it, as she suffered from it no uneasiness or incon-

venience. She had taken for several years a great deal of medicine for '*liver complaint*,' dyspeptic ailments, &c. The tumor, examined through the abdominal parieties, seemed pretty firmly fixed in its situation. It felt like a globular sac containing fluid.

Examination twentysix hours after death. — I pass by the pathological appearances in the chest, merely remarking that there was inflammation of the whole lung and pleura on the right side, and evident marks also of pericarditis. On laying back the integuments of the abdomen, a globular tumor presented itself just above the pubis, apparently extending down into the pelvis, its upper half covered by the omentum. It was easily pulled up from the pelvis, the cavity of which its inferior prolongation nearly filled. It was this extension of the tumor into the pelvis, which gave to it its fixed feel when examined through the walls of the abdomen. The tumor, together with the uterus and its appendages was removed, and found to be irregularly oblong in its shape, measuring nine or ten inches from its inferior extremity in the pelvis to its summit above the pubis, and eight inches in its largest transverse diameter, which was through the upper or abdominal portion. Its surface was smooth, and mottled with various shades of a bluish purple color. It was considerably vascular, many of the blood vessels being large and tortuous.

The tumor evidently had its origin in the left ovary, and consisted indeed of this organ, transformed into a serous cyst. Not the slightest remnant of the ovary could be found in a natural state, while the fallopian tube, with its fimbriated extremity of the same side was wholly unchanged. The right ovary was sound. The only attachment of the sac to any of the neighboring parts, was to the uterus on its left and posterior part by a thin band or a process of peritoneum about three inches broad. This attachment did not appear any more vascular than the parieties of the sac. The surface was slightly lobular in its appearance. On puncturing the sac, there was discharged a quantity, amounting to two quarts, of a dirty, brownish and inodorous fluid. It contained, also, some six or eight ounces of a thick substance like lees, having the same dirty color as the fluid. The walls of the sac were thin, not much thicker than peritoneal membrane, and its inner surface, like its outer, was smooth and shining.

Remarks. Case 3 presents us with one of those instances of anomalous and misplaced development which have so long

puzzled the philosophy of physiologists. By the ingenious researches of Meckel, Tiedeman, Geoffroy-Saint-Hilaire and others in Germany and France, there has been introduced into that seemingly most chaotic subject of *monstrous formations* no inconsiderable degree of scientific order. It had been supposed that NATURE, usually so sedate and obedient to her own statutes, was under the influence of capricious or half-crazy feelings, or was indulging in a lawless and mischievous frolic, while engaged in the creation of these deformed and ugly monstrosities. Better acquaintance with her works seems to show, that she acts under a law as consistent and immutable when arranging the parts of a misshapen notencephalus, as she does when moulding the plastic and living clay of an Apollo or a Venus. In like manner, the discovery, so frequent, of ossific and pilous formations in situations where they are not usually found, and especially in some of the uterine appendages, has led to different attempts at a philosophical solution of the phenomenon. Among the various explanations of the fact, the most plausible, perhaps, is that which makes the hair, teeth, &c. consist of the *debris* or remains of an imperfect product of conception. The teeth are said always to resemble those of the first dentition; the crowns project inside of the cysts, the roots are contained in alveolar processes, and these latter are attached to an osseous fragment which is hidden in the walls of the cyst. The doctrine that these substances are the product of extra uterine conception, applies very well to those cases where the hair, teeth, &c., are found in the ovaries or tubes of females arrived at the age of puberty. But these same substances have been found in young girls and in the male sex, and in various parts or organs, as the liver, omentum, and in the mediastinum. The explanation in these cases is, that there was a cotemporaneous existence of a second embryo, as in some instances a fœtus, more or less perfect, has been found contained in the interior of another perfectly developed.

In case 4, we have an example of that morbid alteration which has commonly been known by the name of ovarian dropsy. The serous transformation of the ovaries is one of the most common pathological changes to which these organs are subject. The ovaries, even in young subjects, apparently free from disease, very frequently exhibit what may fairly be considered the rudiments of this affection. In a case of a young, unmarried female who died a few weeks ago with typhus fever,

one of the ovaries contained two small cavities, nearly as large as a filbert, with smooth inner surfaces; one of them contained clear, serous fluid, the other a sanious matter; in the other ovary was a cavity similar to the two described. In the case of another young, unmarried female who died since the one above-mentioned, of perforation of the stomach, each ovary contained seven or eight of these little cysts or vesicles, varying in size from that of a small pea to that of a filbert. The organs themselves exhibited no traces of other disease, if indeed, it be proper to call these appearances morbid.

In both these cases of diseased ovaries, the general system was but slightly, if at all, affected by the local lesion. However intimately and indispensably connected the ovaries may be with the process of conception, it would seem from case 3, that they have but little influence over the menstrual function. Their presence and healthy action seems to be essential only to the performance of a single, periodical function, — that of generation or a part of it, — and this circumstance, together with that of their anatomical isolation, accounts sufficiently for the local character of their diseases, especially in old age.

Various attempts have been made, as is well known to our readers, to cure, radically, ovarian dropsy, and other morbid alterations of these organs. The late Dr. Nathan Smith of *New England*, extirpated successfully an encysted ovary containing eight pounds of fluid. The patient, aged thirtythree, years, was able to sit up and walk in three weeks after the operation. The cyst was emptied of its contents by puncturing before the sac itself was removed. In two subsequent cases the same surgeon was obliged to desist from the operation after it had been commenced. The cases related by Dr. Mc Dowell of Kentucky are generally known. Marjolin relates a case in which a radical cure was attempted, by the injection into the cyst of a stimulating liquid. The patient was fifty years old, of a good constitution. Three months after the tumor had been punctured, and fifteen pints of transparent serum drawn off, it having filled again, she was earnestly desirous that an attempt should be made at a permanent cure. After evacuating the sac, a pint and a half of warm barley water with a little honey, was thrown into it, and allowed to remain during the space of five minutes. The presence of the fluid in the tumor was attended with pretty strong pain, which was very violent in a few hours after the operation. The patient

died in three days, with every symptom of acute peritonitis. The same surgeon, in another case, attempted a radical cure by leaving in the sac a gum elastic canula, introduced through a puncture made by the trocar, in order to evacuate the fluid. The supervention of inflammatory symptoms obliged him to withdraw the foreign body. Marjolin asks if the seton could be used with any hope of success, as has been recommended, and then adds, that although observation has not answered the question, he should prefer this means to the injection of irritating liquids, or to the introduction of a gum elastic canula. The seton has been resorted to in this country, at least in one instance, but with what success I am unable to say. The operation was done by Dr. Gallup of Woodstock, Vt. I saw the patient while the seton was still in the tumor, but I have never learned the termination of the case. Operations for the removal or radical cure of diseased ovaries, *when successful, are published.* Is it not a duty which surgeons owe to the claims of science, is it not a solemn duty which they owe to the interests of humanity, that they should publish their unsuccessful cases? Dr. Blundell very coolly proposes in his lecture-room, that we should open the abdominal cavity, go down into the pelvis and divide the fallopian tubes, or remove a small section of them; — and all for what, the reader will probably ask. Why, for the humane and scientific purpose of preventing the possibility of pregnancy without destroying the sexual propensities, in cases of narrow pelvis! He also proposes the extirpation of *healthy* ovaries, as means of cure in very bad cases of dysmenorrhœa!! Now it would be hardly fair, perhaps, to rank these *propositions* with the operations above spoken of, but the value and propriety of the latter might be much more correctly appreciated, if we knew as much of the unsuccessful, as we do of the successful cases.

COLLECTANEA.

Rabies Canina. — Dr. Capello, a physician of Rome, after giving several cases of this affection, with appropriate remarks, concludes, not only that rabies is not communicated beyond the second person affected, but that its nature is not contagious.

'Contagious diseases,' says he, 'are reproduced many times — nay, almost to infinity, and everywhere; but this is not the case with rabies. The former, either by means of a latent germ, or under atmospheric influence, appear and disappear at certain determined periods: rabies, on the contrary, knows nothing of these epochs, but develops itself at most irregular and uncertain times. Contagious affections, whether of the system generally, or affecting the integument alone, produce invariably some eruption or efflorescence, by means of which we can determine the true character of the disease; rabies, on the other hand, is accompanied by no eruption or discoloration of the skin. They assume characters more or less intense, by reason of certain meteorological changes: rabies, on the contrary, pursues its undeviating course, whatever be the circumstances, the season, the climate, the weather. Contagious diseases gradually lose much of their intensity of character, and some of them have disappeared from the surface of the earth: rabies, from the moment it was first described to the present hour, has uniformly retained the same character. They, however fearful may be their character, spare a few individuals which they attack; but rabies, whether spontaneous or communicated, is always mortal. Finally, contagious diseases propagate themselves with so much the more facility in proportion as they are fatal, and are transmitted not only by immediate contact, but by very circuitous means: rabies, although uniformly fatal, is transmitted only through the medium of a solution of continuity.

'A difference so marked,' adds the author, 'makes me more and more doubt the contagiousness of rabies. *Rabies canina* seems to me to form *the intermediate link which unites the chain of contagious with that of poisons*, properly so called. I made these reflections when, after more than forty days, out of the numerous animals that had, in the month of March, 1811, been bitten by the ox described in the first case, not one of them had become rabid. I thought of those persons who, without presenting us with any convincing reasons, affirmed that rabies could not be communicated by herbivorous animals, and I felt that the arguments furnished by analogy were utterly contrary to this assertion; for, besides the anthrax of the tongue, and other contagious maladies of herbivorous animals, we had happily discovered the pustule on the teat, which not only could be propagated from the cow, by inoculation, to every other species of animals, but was a preservative in the human being against that destructive scourge the small-pox. In the month of April, in the same year, I happened to see the number for August 1810, of the *Medico-Chirurgical Journal* of Alexander Flajani, and the train of thought which had passed through my mind received much confirmation. There was an article in that Journal in which,

besides some cases related by Professor Rossi, of Turin, on this subject, I found the following case, related by Professor Bader. He had a rabid dog, which bit several others. They became rabid, but they did not communicate the disease to the animals bitten by them. This isolated fact, added the editor, is not sufficient to prove demonstratively the opinion of M. Bader, that rabies cannot be communicated beyond the first inoculation. This very proper reflection kept me for a while in a state of incertitude ; but I was, at length, fully convinced by the cases which I saw in 1813, 16, 18, 20, and 21.'

'Does any one ask *how it happens that spontaneous rabies should be so contagious, and communicated rabies not contagious at all, when the symptoms of the one and the other are precisely the same?* I can only answer, that the science of medicine consists of a series of facts, and that the cases which I have described are facts. I might, indeed, add, that when we attentively consider the physiological and pathological state of organized and living beings, there are many obscure questions, the mystery surrounding which the most ingenious men have not been able to disperse.

'If I may be permitted to advance an opinion, I think that there is one peculiar cause of the development of spontaneous rabies ; and this cause certainly does not exist in those that have acquired the disease by communication. The symptoms of hydrophobia from a moral cause, and also those of sympathetic hydrophobia, do they not resemble — simulate — those of essential rabies, and yet they belong not to an affection which is virulent and contagious in its nature? But the symptoms of spontaneous rabies are *not identical*, at least *in degree*, with those that characterize the communicated disease. I have constantly observed, that the disobedience to command, the fury, the avoidance of society, which are precursory symptoms of the malady, are more intense, and more quickly appear in those that are affected with spontaneous rabies. The cases which I have reported prove this. It is rarely that dogs affected with spontaneous rabies are seen in inhabited places ; when they become diseased, they search out for caverns and the most secret recesses.'

The author concludes his first memoir, with making some observations on the etiology of rabies. Compelled to admit some special cause of the existence of spontaneous rabies, he thus proceeds : — 'The reflections which I have made on the development of rabies in the Tiburtine country, induce me, among other causes described by authors, to recognise one exclusively, which I think will be the same wherever essential rabies manifests itself. It is neither rage, nor hot food, nor putrid meat, nor confinement, nor excessive fatigue, nor suppressed perspiration, nor variety of temperature, but simply *venereal desire existing to*

excess and not satisfied. This circumstance seems to me to be the absolute cause of rabies. There are a greater number of male dogs at Tivoli than of females. The bitches when they are at heat are usually shut up, that they may breed with some selected male ; the other dogs, led by instinct, wander about the houses in which the females are confined. In proportion as the gratification of the natural desire becomes more difficult it increases in violence, and it is easy to conceive of the suffering of the animal, and the constitutional injury inflicted when these desires are not gratified at all.'

The *particular structure of the sexual organs* in the genus *canis* strengthens, according to the author, the opinion that this may be the exciting cause of rabies. 'They have no *vesiculæ seminales*, so that the semen cannot be secreted without copulation ; and there is, besides, in the canine race, a mechanism which prolongs the act of copulation. In other animals, on the contrary, provided with *vesiculæ seminales*, there is a kind of reservoir for the semen, in which it cannot only be absorbed, but from which it can be occasionally ejected without copulation. The constant, superabundant semen in the spermatic vessels of the dog, and the state of venereal orgasm in which he so frequently or almost constantly is, must produce their effect on his whole constitution.

'In Egypt, and in other Mahometan countries, rabies is unknown, on account of the facilities which the canine race there experiences for the gratification of venereal desires. Some celebrated authors assert that castrated dogs are rarely affected with rabies.'

In a second memoir, M. Capello endeavors to show that the opinions of several authors are in accordance with his, that rabies cannot be communicated to a third individual. — *Verterinarian, Nov.* — *Lancet.*

Tubercles always in the Lungs when found in other Organs. — 'If, for example, we know at this day that after the age of fifteen years, whenever we find tubercles or gray semitransparent granulations in *any* organ, they exist at the same time, and in a still more advanced stage, *in the lungs*, it is to pathological anatomy that we owe this fact. For if we had contented ourselves with examining in most cases the organs *primatively* and *principally* affected, evidently we could not have arrived at the knowledge of the law just mentioned, the importance of which cannot be doubted.

'It is in the same manner and by the same researches that we have learnt that ulcerations of the pharynx, the œsophagus and the small *intestines*, are peculiar to two affections (I except

syphilis,) the one acute (typhoid fever,) the other chronic (phthisis); that ulcerations of the epiglottis, larynx, and trachea, are, with the exception already mentioned, *peculiar to phthisical cases;* that it is almost the same with fatty liver. And the importance of the laws announced by pathological anatomy is still greater than at the first glance we might suppose; for these laws may in some instances, *independently of the symptoms*, in their absence, and *even in opposition to their evidence,* lead us to a rigorous diagnosis. Thus chronic peritonitis (I mean that which is chronic at the commencement) is, in the adult, or, rather, after the age of fifteen years, according to all the facts which I have hitherto collected, *constantly* tubercular, or connected with the existence of gray semitransparent granulations developed upon the peritoneum. But, as I have previously mentioned, neither of these lesions exist in *any* organ, without appearing simultaneously *in the lungs;* so that if we have good evidence that chronic peritonitis exists, we may, independently of the symptoms derived from the respiratory organs, and even in their absence, announce the existence of a greater or less number of tubercles, or of gray semitransparent granulations, developed in the lungs. We may safely do so; for if observation should hereafter show any exception to this law, these exceptions will be rare, and will not affect the existence of the general law.

'I have more than once recognised and announced the existence of phthisis in cases which exhibited all the symptoms of chronic peritonitis, but in which auscultation and percussion did not indicate any appreciable lesion of the parenchyma of the lungs; and even in individuals who did not cough, — a diagnosis which some persons would call presumptuous, which, however, was not so, and which I could not have failed to make without denying the laws of the economy of disease, the science itself in fact; for of what does the science consist but of these laws.' — *M. Louis on the Pathology of Diagnosis.*

Treatment of Erectile Tumors. — The applicability of this treatment has been variously estimated by surgeons. Boyer and Begin condemn caustics altogether. M. Sanson, in his edition of Sabatier, regards it as acting too slowly and uncertainly, notwithstanding the experience of Wardrop for employing it in preference to more active measures. Velpeau expresses himself more energetically against the use of caustics, cautery, and similar means, which, says he, expose to severe accidents, such as hemorrhage, more rapid growth of the tumor, great loss of substance, disfiguring cicatrices, &c.

In answer to these objections M. Tarral refers to experience,

and shows by an analysis of the cases which have been treated by caustic, that surgeons have pronounced too hastily against this mode of treatment.

Callisen appears to have been the first who proposed cauterizing an erectile tumor. 'Nævi parum prominentes caustico admoto consumuntur, &c.; sed majores nævi ferro exscandi sunt, &c.' (p. 204.) However, Mr. Wardrop has the merit of having pushed this practice to its utmost extent, and of having directed the attention of surgeons to its true value and efficacy. Mr. Wardrop has operated on a great number of nævi in this manner, and has, we believe, constantly been successful, without giving rise to the great pain, hemorrhage, or deformity, so much dreaded by the French surgeons. Dr. Lee and Mr. Higginbottom of Norwich have been equally successful with the caustic. Finally, M. Tarral publishes two cases of eruption of erectile tumors, one of which he operated upon in London; the other was that of a small tumor situated below the urethra, and prolonged upward into the vagina; the centre of the tumor was rubbed with the caustic potass, and he repeated its application a few days after; the tumor was nearly completely destroyed, when it was discovered that the patient was pregnant (four months and a half gone); the application of the caustic was therefore diminished, and the treatment deferred to a future opportunity.

From a consideration of the various cases which M. Tarral has examined, and he has certainly taken a most complete view of his subject, he draws the following considerations: —

1st. Erectile tumors of every size and nature may be completely destroyed, and without danger, by caustics.

2nd. The caustic is easily applied and managed, and does not frighten the patient.

3rd. It is applicable to every region of the body, and is thus preferable to every other method.

4th. It is of the utmost importance not to confound with erectile tumors, either fungus hæmatodes or encephaloid cancer. — *Lancet.*

On the Employment of Large Doses of the Tartrate of Antimony, after severe Wounds and other Injuries. — M. Franc, in his prize memoir, has brought together a multitude of cases of severe injury, to demonstrate the salutary effects of this very powerful remedy. The cases have been drawn chiefly from the cliniques of MM. Delpech and Lallemand, in the Montpellier hospitals, and are valuable alike for the accuracy of their histories and the results of their treatment. The medicine was usually given in full dozes — 8 or 12 grains being dissolved in water, and a fourth

part being given every half-hour, till the muscular energy and the arterial and nervous excitement were subdued ; and then smaller doses were continued, at greater intervals, to keep up the contra-stimulant effects. Several cases of simple and compound dislocations, in which the reduction was effected with unusual facility, after the exhibition of the tartrate, are mentioned ; and, indeed, it was in this class of accidents, and in injuries of the head, that the good effects of the antimonial treatment are chiefly insisted upon. In almost every example, the inflammatory and nervous symptoms were prevented by the timely employment of the tartrate, either with or without the previous abstraction of blood ; and even when a train of distressing symptoms had set in before the patient applied for assistance, the relief was uniform and most striking, as soon as the ' tolerance' was once fairly established. It is to be observed, however, that, on the whole, this treatment is much more effectual as a preventive than as a curative means.

M. Franc has done a service to his professional brethren, by collecting and arranging the materials of his memoir, for, although the treatment is neither novel nor unknown, we believe that it is not quite so extensively adopted as it ought to be. Many a pound of blood might be saved, if the antimonial antiphlogistic was duly appreciated on all occasions. — *D'Emploi du Tartre, &c. Montpellier*, 1834. — *Medico-Chirurgical Review.*

Observations. — Endermic use of Digitalis in Dropsy. — The tincture which was employed in the preceding cases was stronger than that in common use ; it was prepared by digesting an ounce of the leaves of the herb in three ounces of alcohol. If the experience of other practitioners should confirm that of Dr. Chretien, the endermic method of exhibiting digitalis will be a most valuable improvement in the mode of treating many cases of dropsy. The reports of his cases are certainly far too brief, and too carelessly drawn out, to satisfy the mind of the critical reader. No allusion is made to the state of the pulse during the continuance of the remedy ; but we are led to infer, from the subsequent remarks of the author, that it was always lowered, when administered internally, and that no sensible effect was produced upon it by the external use of the medicine. It has been maintained by Broussais, and other physicians of the physiological school, that the direct and normal action of digitalis is a sedative to the circulatory system, and that, whenever the pulse becomes quickened, or, indeed, is not reduced by its use, we may conclude that some gastric irritation exists in our patient ; in order that the drug may be able to exert its natural action, the stomach must be in a tranquil state. The experiments which Dr. W. Hutchinson instituted upon himself are the most

satisfactory and conclusive, as to the operation of digitalis on the human body, and they certainly confirm the doctrine of Broussais; the pulse was gradually more and more lowered as the medicine was continued, and its dose increased, until it beat only 28 times in the minute; and a gastro-intestinal irritation, accompanied with extreme exhaustion, having then come on, the contractions of the heart became strong and vigorous, and were upwards of a hundred. It is to be remembered, that this experiment was repeated, and the same results exactly were obtained as on the first occasion. — *Révue Médicale.* — *Ibid.*

Anecdote of the distinguished Anatomist Vesalius. — It happened that he had been attending a Spanish nobleman, whose disease had baffled the skill of all the medical men of Madrid. At the dissection of the patient, the surgeon and his assistants (Vesalius was not present) were horror-struck, we are told, on finding that the heart still palpitated; and in the rashness of their ignorance, they loudly accused Vesalius of homicide, before the tribunal of the Inquisition. Sentence of death was pronounced by the monsters of this court against their innocent victim; and no doubt it would have been carried into execution, had not the intercession of the Emperor, and of many of the nobles, prevailed to transmute the punishment of death, to that of a pilgrimage to the Holy Land!! In 1564 he embarked for Jerusalem, and while residing there, he received an earnest solicitation from the Venetian government to return to Padua, to fill the anatomical chair, which had become vacant by the death of Vesalius's favorite pupil, Fallopius. Alas! the master was soon to follow: the ship on the voyage home was shipwrecked off the coast of Zante, and he who had lately basked in the sunshine of the most splendid of the European courts, died of starvation on a desolate rock in the Mediterranean.

All the works of Vesalius were collected together and published under the care of Boerhaave and Albinus, in two folio volumes, at Leyden, 1725. It may be mentioned, that Copernicus, Galileo, Torricelli, and Pascal, were cotemporaries of the subject of the preceding sketch. — *L'Observateur Med. Belge.* — *Ibid.*

EDITORIAL NOTICES.

Catechism of Medical Jurisprudence.

A Catechism of Medical Jurisprudence. By Stephen W. Williams, M. D., late Professor of Medical Jurisprudence in the Berkshire Medical Institution, &c.

We are truly sorry that our publisher, more considerate of editorial perquisites than many of his brethren, sent us a copy of this attempt at authorship; for besides the loss of time, and wear and tear of temper attending the perusal of it, he has imposed on us the unwelcome duty of saying that which will be anything but agreeable to his author, who, we are told, is one of the most amiable fellows in the world. But good nature and wisdom are not always found in company; and although the former is a very estimable attribute, all must insist on a few grains of the latter, in a lecturer and writer on a subject so profound as that which Dr. Williams has undertaken to teach to 'Physicians, Attorneys, Coroners and Jurymen,' in a little duodecimo of two hundred pages. That he has no adequate conception of the task on which he had ventured, is evident from the following sentence on the first page. 'The object of Medical Jurisprudence, Forensic or Legal Medicine, is *to point out to the physician those cases of real or supposed crime, on which he may be called to give in professional evidence in a court of justice.*' The same misapprehension of the character of his subject is manifested in his employment of the catechetical form of treating it, which of itself, is enough to mark the volume a literary nondescript. The higher branches of the pure mathematics, or a biography of John Hunter, might be taught by catechism with as much propriety and advantage, as the subject under notice. And, in truth, very little is taught in our little volume, except the presumption of its author, and his utter incompetency as a book-maker, even at the low estate to which that once honorable employment has now fallen. There are some quotations from standard works, (we should say many, for upwards of seventeen solid pages of the introductory chapter are thus composed,) which are the only tolerable portions of the volume, and these are introduced with so little regard to pertinency and connection, as not to constitute a redeeming element; and the whole book must nevertheless be pronounced 'stale, flat, and unprofitable' to a de-

gree which forbids any extenuating comments. This sweeping condemnation might easily be justified by quotations from almost any page of the 'Catechism; for it would be the merest accident if we should turn to one which did not exhibit some gross violation of the principles of grammar, rhetoric, logic, or physiology. But we have no intention of reviewing it — it is altogether too weak for such treatment. What we have said of it, would not have been uttered, but for the announcement which it bears on its front, as a sort of recommendation, that the writer has held the responsible place of professor in one of our medical schools, and nothing can be more discreditable to these institutions, than the exhibition of such literary incapacity on the part of their officers. We hold this circumstance alone a sufficient justification for any severity which may appear in these remarks on the book, as well as our apology for noticing it at all.

Small Pox.

Three cases of this disease have occurred in the city since our last publication. One of them was an isolated case, and, so far as is known at present, of spontaneous origin. Of the other two, one was the consequence of the patient's exposure to the other. Although the interposition of the health officers was, as usual, prompt and judicious, it can hardly be possible but that many persons, who have no other protection than vaccination, were exposed to the infection; but no new cases have appeared — a fact which stands in gratifying contradiction to the alarming doctrines of a paper from one of our correspondents, in a late number of the Magazine, on revaccination.

Boylston Prizes.

The Medical Mæcenas of Massachusetts, a few years before his death, instituted some prizes to stimulate the members of the Boylston Medical Society in the exercise of medical composition. The dissertations for the present year have lately been examined, and the prizes awarded as follows.

To John H. Dix the first prize, for a Review of Sir C. Bell's System of the Nerves.

To Francis Clarke the second, for a Dissertation on the Blood.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

SELECTED ARTICLES.

POISONING, AND ITS PROOF AFTER A LENGTHENED INTERMENT.

A REMARKABLE instance, in which death by poisoning was proved by scientific and skilful investigation, long after the fact, has lately occurred at Bristol, England. Suspicions arose that a Mrs. Smith, aged 60, had been poisoned by a Mrs. Burdock, *alias* Wade, with whom she lodged. The body of Mrs. Smith was therefore disinterred *fourteen months* after burial, and submitted for examination. From the full report of the Inquest, in the London Medical Gazette, we extract the evidence drawn from the morbid appearances and chemical tests.

Evidence regarding the Morbid Appearances.

Dr. Henry Riley stated that he went with Mr. Kelson and others to open a body of a female interred in St. Augustine's church yard. On the coffin plate, which was partially destroyed by rust, was written 'Mrs. Smith,' aged sixty odd years; the grave was much deeper than usual for so common a coffin, and there was no water at the bottom; the coffin was

made of common elm, such as is used for burials of paupers, and was screwed down in the usual way. On the lid being removed by the undertaker, they saw the remains of a human being; there was some loose earth on the breast and abdomen, which had got in through a slit in the lid, and a considerable quantity of water, which covered part of the breast, the abdomen, legs, and arms; the upper surface of the face and neck were above the level of the water; the body had on a shroud, an under garment, a pair of stockings, marked with red thread C. S., and the remains of a cap could be traced on the head. The body clothes were slit down the centre, so as to throw the dirt which had fallen through the opening of the lid on either side; by these means the body was exposed to view; it was that of a thin person; the chest had not fallen in, and there was no appearance of its having been opened. Mr. Kelson and witness then opened the chest and abdomen, by cutting through the cartilages of the chest and ribs on either side of the sternum, continuing the incisions downwards; thus the chest and abdomen became fully exposed. They found that all the parts which were below the level of the water were turned into adipocire; the external surface of the stomach and intestines appeared of a pale bluish color; there did not appear any traces of disease or inflammation of the peritoneal surface of the abdomen; he did not think there was any water in the latter cavity until it flowed into the thorax, and thence into the abdomen, at the time of opening; they next took out the whole of the intestinal canal from the œsophagus downwards, and placed the different parts in separate vessels; in separating the small intestines from the duodenum, they noticed a considerable quantity of a yellow substance covering the mucous membrane of the latter, and were surprised to find that the whole of the canal presented such an extraordinary degree of firmness, and was so slightly decomposed; it was as firm as that of persons who died in an ordinary way, and who have been dead but a few days; the liver had shrunk to a fourth or fifth of its natural size; it was not thicker than his hand; the pancreas presented nothing peculiar in its appearance; the lungs had collapsed, and were reduced to a fourth of their volume; they were of a dark color, approaching blue or grey; he did not see any thing like tubercles in them, nor any thing peculiar with regard to the pleura, nor did he observe any adhesions; the heart was collapsed and shrunk, but there was no appearance of disease in it; the diaphragm was little changed,

and perfect. Witness cut off the head for the purpose of identity by the teeth. The stomach and alimentary canal were removed to the Medical School for examination; there were yellow spots in several parts of the peritoneum: they were of a bright yellow color, identical with that alluded to as being seen on the mucous membrane of the duodenum; they were in the largest quantity on the stomach, and also visible on the upper part of the intestines, and were besides visible in one or two places on the mesentery; where the spots were seen outside, they were also traced internally, as extending through the whole substance of the intestines; the mucous membrane of the stomach was firm to an extraordinary degree, and there were no ulcerations upon it; the dark red color it presented might either proceed from intense inflammation or from decomposition; he inclined, however, to the opinion that it was the former, otherwise the membrane could not have been so firm; the greater portion of the spots were near the pyloric extremity of the stomach; the yellow matter was spread over the whole mucous membrane of the stomach, as well as the duodenum; it could be scraped off in large quantities, and especially from the stomach; the matter most resembled in color sulphuret of arsenic, commonly called orpiment; he did not think that it arose from an infiltration of bile; the mucous membrane of the jejunum presented the same dark color; it was equally firm with the other parts; traces of the yellow matter were also seen in this portion of the intestine; in the great intestine the mucous membrane was of a very dark red, it was extremely firm, and spotted of a dark slate color, particularly so in the neighborhood of its upper part near the ilio-cœcal valve; it had no yellow spots or ulcerations; the appearances of this intestine were such as are commonly found in cases of chronic diarrhœa of long standing; the slight change it had undergone was as striking as that of the stomach; in the latter and duodenum he saw little else but this yellow substance; in the smaller intestines there was a small quantity of brownish fluid, something like cocoa. He attributed the firmness of the intestinal canal to some antiseptic substance, and sulphuret of arsenic was said to be so in a very great degree; he did not mean to say that there were no tubercles in the lungs, but merely that he did not see them; the dark slate color of the mucous membrane of the intestinal canal is said by the French pathologists to indicate chronic inflammation.

Chemical Evidence.

William Herapath. — Is Lecturer on Chemistry and Chemical Toxicology at the Bristol Medical School; was applied to on Monday last, the 22d, to examine the body of the deceased; undertook to do so, and to analyse the contents of the stomach; was present during the whole of the time of the disinterment, and the taking out of the viscera in St. Augustine's church-yard; received them from the hands of Dr. Riley and Mr. Kelson, the medical gentlemen employed; placed them separately in two basins, which had been carefully wiped clean by himself — the stomach and duodenum in one, and the intestinal canal in the other; the stomach was whole, there was no orifice, and no loss of any of its contents worth noticing; tied up the basins with their contents in a cloth, and gave them to a man to carry to the Medical School; never lost sight of him the whole way. The appearance of the body in the church-yard was such as to lead witness to believe that it had been under the influence of an antiseptic; the body was, generally speaking, rapidly passing to a state of animal soap, or adipocire; the stomach and intestinal canal were in an unusual state of preservation, so much so, in fact, that upon seeing the viscera opened, he exclaimed, 'This looks like the effects of arsenic; as it is a well-known fact that that poison has the effect of preserving the parts contiguous to it; and tends to assist the changing the other parts into adipocire. Upon receiving the parts, witness invited all those who were interested in the case to accompany him, as he intended to operate in public; the solicitor, and three medical gentlemen employed by the accused, accompanied witness, with many others, to his own theatre, at the Medical School, where he put a new deal board on the lecturing table, and placed on it the stomach, which was still entire, with the exception of two small cuts which must have been made in taking it from the body; witness slit it open with the scissors, and found a great portion of it thickly covered with a yellow pasty matter looking like wet clay; all the apparatus used by witness was either entirely new, or had been carefully cleaned by him previously. As he was strongly inclined to think this powder was sulphuret of arsenic, he proceeded to treat it as such; he separated a small portion of the yellow substance with the spatula, absorbed the moisture on blotting paper, and then dried it; witness mixed it with a certain proportion of carbonate of

soda and charcoal, both well dried, and put the whole into a reducing tube, and immediately sublimed metallic arsenic; this metallic arsenic was made the subject of the other experiments; witness first heated it, allowing the air to enter the tube, and it became oxidized, and sublimed into a white crust; this formed the second test of the presence of arsenic. Witness then introduced two drops of water into the tube containing the white crust, and with heat dissolved it; these two drops were made the subjects of two experiments. Into one he put a minute portion of ammoniacal sulphate of copper, and immediately found the green precipitate of Scheele, or arsenite of copper; into the other drop he put a minute portion of the ammoniacal nitrate of silver, and the yellow precipitate of the arsenite of silver fell. He had thus four tests of the presence of arsenic; it only remained to be brought back to its original state by passing a stream of sulphuretted hydrogen through the arsenious acid; this he did, and obtained the beautiful yellow of the sulphuret of arsenic; he had gone through these experiments four different times, and all with the same results. He next attempted to discover what quantity of the yellow substance there was left in the stomach; there was nothing of any importance in the stomach besides; he inverted the stomach into water, and washed its internal surface; he allowed the yellow powder to subside, and filtered the fluid so as to separate the yellow matter; in doing so he found that certain portions adhered to the internal surface of the stomach, and in two spots an infiltration had taken place into the substance of the stomach itself; the quantity collected could not be well separated from the filtering paper, on account of the animal matter; the nearest estimate by weighing and counterpoising an equal sized piece of paper, gave seventeen grains as the weight of the substance and animal matter. To get rid of the animal matter he introduced (taking away four grains for the purpose of other experiments) the paper and its contents into a flask of nitric and muriatic acids, and boiled it till every thing was either decomposed or dissolved, except the fibres of the paper; he next filtered and extracted the whole of the fluid and then precipitated the arsenic by means of sulphuretted hydrogen; the thirteen grains yielded witness four grains of sulphuret of arsenic. There are but two metals that will give the yellow precipitate with sulphuretted hydrogen; the one is cadmium, which is exceedingly rare, scarcely ever to be met with in

this country; he had about half an ounce of it, which he should think is more than there is in all the kingdom besides; the other is the peroxide of tin, which is also scarce, and is not used at all as an article of commerce or medicine, and in this case could not possibly exist. — (Mr. H. then showed to the jury the matter which had been taken from the stomach, and which had produced the yellow precipitate or sulphuret of arsenic; and also specimens, in sealed tubes, of the action of all the other tests. The stomach itself was also exhibited, and the yellow spots were very apparent, and some of the yellow matter still adhered to its coats.)

By the Coroner. — He believed there is no well authenticated case of how much sulphuret of arsenic will destroy life; the quantity will differ with the proportion of the materials used in manufacture; native orpiment is not so poisonous as the factitious; it is possible that it might have been swallowed in the form of white oxide, or arsenious acid; arsenic is in common called 'white' or 'yellow' arsenic, and would be sold by druggists under those names; white arsenic is chemically called arsenious acid, and yellow arsenic, sesquisulphuret of arsenic; they are both poisonous, but not equally so; white is the most poisonous; all compounds of arsenic are poisonous; the operation of each is nearly similar. He had never seen a stomach operated upon by arsenic before; should think the yellow spots were caused by the rapid operation of the arsenic suspended abruptly by death; if they had taken place after death, they would, in his opinion, have been as generally extended as the sulphuret itself; both sorts of arsenic are very cheap; he had not the slightest doubt of the nature of the poison found in the stomach; he could stake his existence on the fact of the presence of arsenic in the stomach and intestinal canal; cannot say in what state the arsenic was taken; the process of decomposition sometimes produces sulphuretted hydrogen, which would convert white arsenic into orpiment; that found in the stomach is orpiment; cannot positively say in this case whether sulphuretted hydrogen had been produced, because adipocire was formed, and the decomposition of the body did not proceed as is usual; he was certain arsenic could not have been introduced after death, as the stomach was whole when it came into his possession; witness's attention was first arrested by seeing a small drop of yellow matter ooze from the stomach; the great quantity of yellow substance in the stomach struck him at once that he should find a mineral

poison. He observed no bile in the stomach ; there was nothing of importance in the stomach ; if there had been bile he must have seen it ; he was certain there was no bile.

Sick or Nervous Head-ache.

By M. H. Houston, M. D. of Wheeling, Va.

The spirit of our profession, as evinced in the medical journals of the day, would seem to indicate too strong a disposition on the part of its members, to publish extraordinary cases, such as occur but seldom, and the details of which can rarely prove of much utility to the general practitioner.

It has been said by an eminent physician, that the individual who shall discover an infallable remedy for the tooth-ache, will prove himself a greater benefactor of mankind, than he who shall discover a specific for the locked-jaw. We believe this to be true ; for although the fatality of tetanus may be, comparatively speaking, infinitely greater than that of tooth-ache, yet the aggregate of suffering caused by the latter is greatly disproportioned to that occasioned by the former, and hence the desideratum for a never-failing remedy.

Peculiarities in the symptoms, the pathological conditions upon which these symptoms depend, and the effects of different modes of treatment in diseases of every-day occurrence, are the subjects which we think, should principally adorn the pages of a practical journal. Conceiving yours to be strictly of this nature, I take the liberty of sending you a few remarks on a disease, as common as it is truly distressing. I allude to the *nervous* or *sick head-ache*. This disease occurs most frequently among those engaged in literary, scientific, and other sedentary pursuits ; and whether from mistaken notions of its pathology, or from ignorance of the means best adapted to relieve the pathological condition upon which it depends, or from what other cause I know not ; but certain it is, that it is very often, I may say very generally, mal-treated, even by intelligent physicians.

The period of attack in this disease is very variable, though it generally occurs more frequently in the afternoon than in the morning, and when it does occur in the forenoon, the patient, unless relieved by appropriate treatment, continues to be haras-

sed during the whole day. Persons subject to it are usually of a costive habit, and resort for its relief to the too frequent use of cathartics. As the disease must be familiar to every one, it will not be necessary to enter minutely into a detail of its symptoms. There are some circumstances, however, connected with its accession, which may have escaped general observation; and as they serve in some measure to indicate that particular state of the general system, which predisposes to an attack of the disease, it will not be deemed out of place to notice them.

On the morning of the day, during which an individual is doomed to suffer the agonies of sick head-ache, he rises from bed in his usual health, eats his ordinary breakfast, and in most cases has a *copious* and *rather loose* operation from the bowels, a circumstance so unusual as to attract his particular attention, and lead him to anticipate a day of unusual health and vigor. The very circumstance which flatters him with such a hope, should serve to warn him of the approach of his old and disagreeable companion. This circumstance indicates more clearly than any other, the existence of that state of the general system which predisposes to an attack of the disease. The irritability of the mucous membrane of the bowels renders them sensible to the presence of their ordinary contents, and by the increased peristaltic motion consequent on this morbid irritability, their contents are ejected. The individual feels himself relieved for a time after the operation; his flattering hopes are cherished, and the truce is in all probability maintained, until he eats a hearty dinner, when the prospect of an afternoon and evening of suffering is rendered too sure by certain uneasy sensations in the head, not to be mistaken by him who has once experienced them. There is often at this time, some degree of pain about the region of the pyloric orifice of the stomach, often so slight as not to attract particular attention. There is also some degree of nervous tremor, though neither of these symptoms is constantly present. As the disease advances, the feet become cold, the face flushed; nervous tremors pervade the whole system; the head throbs violently; the stomach is sick, with occasional vomitings and acid eructations. This state of nervous agitation, with all its distressing accompaniments, continues until relieved by medicines, or allayed by six or eight hours of 'heavenly restorative oblivion.'

This disease, we believe, depends on a disordered state of the stomach — either spasmodic contraction of its pyloric orifice, or vitiated secretions from impaired organic sensibility, or both of these combined. That the first is often operative as the immediate cause, may be inferred from the fact, that pain is so often experienced in this particular part, and from the farther consideration, that when vomiting takes place, articles of food which had been taken into the stomach ten or twelve hours before, are often thrown off in a state but partially digested. This is more particularly to be observed where the individual has been eating food to which he is unaccustomed. In this case, the irritability of the mucous membrane is increased to such an extent, that the pyloric orifice contracts at the approach, or when in contact with the unaccustomed stimulant, and thus prevents it from passing out into the intestines. Is it not probable that contraction of the pyloric orifice, by retaining the food in the stomach, may give rise to that perversion of organic sensibility upon which the vitiated secretions depend! However this may be, we believe they often coexist; whether as cause and effect, is not material, since it is certain, either, separately, is capable of giving rise to the disease under consideration.

The secretions do not appear to be diminished, but rather increased in quantity and altered in quality. We have seen persons, during an attack of the disease, vomit repeatedly, and throw off, at each effort, large quantities of fluid, composed principally of acid and mucus, without anything having been taken into the stomach during the intervals. We may sum up our views of the pathology in a few words. The proximate cause consists in spasmodic contraction of the pyloric orifice of the stomach, with vitiation of its secretions; while general irritability of the system, the result of impaired digestion, is the remote cause.

We now pass on to what we have to say on the treatment. Having for several years suffered from the malady in its worst forms, and having derived signal advantage from the remedies about to be recommended, we are enabled on this subject to speak *feelingly* and with confidence.

It has been usual, and is perhaps still generally the practice, to prescribe the free use of cathartics in this affection. We cannot but think this practice has been abused. The remote cause of the disease, as was before remarked, is irritability of the system from impaired digestion. Now, cathartics of all

kinds, however gentle in their operation, and however judiciously administered, have the effect, if given alone, of impairing in a greater or less degree the tone of the stomach and bowels; and as want of tone in these organs is the cause of that irritability of system upon which the disease depends, these remedies, by increasing the predisposing cause, must always do harm. In order to prove serviceable, they must be judiciously combined with tonics. As to their use during the paroxysm — before such as should be administered will have time to operate, the disease will get well of itself.

From the pathological views we have laid down, the objects to be had in view during the paroxysm are, to allay the irritability of the stomach, and with it, that of the general system — to arrest the morbid secretions from this organ, and by imparting tone, to excite it into healthy action. These purposes are best accomplished by a combination of tonic and anodyne medicines. The articles which I have found most prompt and efficient in their action, are the Sulph. or Acet. Morphia, and the Sulph. Quinine.

From what has been said, the modus operandi of these medicines will be readily comprehended. The promptitude and permanency of the relief afforded by them, are as gratifying to the physician as they are often joyful and unexpected to the patient. A pill composed of from one sixth to one fourth gr. Morphia, with from two to four of Quinine, should be taken at the onset of the paroxysm, and repeated in an hour or two, if relief is not obtained by the first dose. The Quinine and Morphia may be made into pill with the Extr. Gentian. I do not pretend to say, that this treatment will relieve in all cases, but I hesitate not to pronounce it the most efficacious of any I have as yet seen adopted.

In some cases attended with harshness and dryness of the skin, to the above pill I have added, with good effect, one gr. of Ipecac, and occasionally, when costiveness existed, one or two grains of Aloes. The relief is generally perceptible in from ten to twenty minutes.

A gentleman who had long suffered from repeated attacks of the disease in its worst form, and who, with the advice of several physicians had used cathartics of different kinds, with the effect only of increasing the frequency of the paroxysms, applied to me while laboring under a violent attack of the disease. As there were indications of acidity present, I gave him some Carb. Sodæ in solution, and one of the above

pills. In fifteen minutes the relief was complete, — he said I had practiced upon him a "*charm*," and it was with difficulty he could be persuaded, that for that day, at least, he would have no return of the head-ache. It did not return, however, and he has since used the pills and prescribed them to his friends in different parts of the country, similarly afflicted, and as he says himself, with never failing success.

The pills seem to have no effect in increasing the disposition to costiveness, but rather the reverse. They also have appeared to me to lengthen the intervals between the paroxysms, and to assist materially in the complete eradication of the disease.

The means best adapted to prevent the recurrence of the paroxysms are, the proper regulation of the bowels; by diet, if possible; if not, by very gentle laxatives, and the constant use of some mild, vegetable tonic. As a laxative, Aloes, in doses of a grain or two every two or three hours, will generally prove sufficient, and we think it greatly preferable to the Rhubarb so generally used. Independent of its cathartic properties, Aloes acts directly on the liver, the organ most frequently at fault, and is also a valuable stomachic.

The tonic which we have generally recommended, is a cold infusion of the wild cherry tree bark. The small quantity of prussic acid contained in this bark, doubtless exerts a salutary influence: hence a cold infusion is the best preparation, since this active ingredient would be evaporated by boiling. It has also to recommend it, its cheapness, abundance, and the ease with which it can be procured.

It will be recollected, that the treatment here recommended is only applicable to cases of sick or nervous head-ache, and as it would prove decidedly injurious in head-aches arising from other causes, it may be proper to notice some of the diagnostic symptoms.

Sick head-ache generally returns *periodically*, and when we meet with an individual, who has not been subject to its attacks, complaining of his head, this circumstance alone should put us on our guard, and render us more circumspect in the treatment. When it is accompanied with coldness of the extremities, weak pulse, nervous tremors; — when it is relieved by the recumbent posture, or any other circumstance which favors the flow of blood to the head, we prescribe the tonic and anodyne without any hesitation. If, on the contrary, the extremities are unnaturally warm, with a full and strong pulse, — if

the skin generally is hot and dry, and the anguish increased by the recumbent posture, it would be but adding fuel to the flame to administer these remedies. We deem it unnecessary to say more on this subject, since the marks which characterize these opposite states of the system are so striking, as to render it scarcely possible for them to be mistaken by persons of ordinary intelligence and observation. In confirmation of the correctness of our views, we might adduce almost innumerable cases, but this we deem unnecessary. — *Western Med. Gaz. Jan.*

ORIGINAL ARTICLES.

Art. I. — A Case of Popliteal Aneurism.

By Charles H. Stedman, M.D.

[For the Medical Magazine.]

John Y. Haskell, aged 29, entered the U. S. Marine Hospital, August 29th, 1834, for a swelling of the right leg. Patient stated that, three weeks preceding entrance, he experienced a slight pain in the right knee, unaccompanied by throbbing, which he attributed to his being obliged to work in a kneeling posture for four or five hours daily, while scraping decks. This pain daily increased in violence, and four days from the first symptom of uneasiness, swelling of the ankle, and soon after, of the whole leg and thigh was perceived, and he was compelled to leave his work. A week after commencement of attack, pain and swelling had so much increased, as almost entirely to prevent his walking or standing for more than a few moments at a time. Among other symptoms, sharp shooting pains in the course of the sciatic nerve were frequently experienced. Considerable febrile excitement was also present, manifested by frequent chills, flushes of heat, loss of appetite, &c.

On his entrance into the hospital, no pulsation about the knee could be discovered, nor was complained of by the patient. The leg and thigh were much swollen and œdematous, presenting a smooth and even surface, painful on pressure throughout. The cutaneous blood-vessels were more injected

than common — color of skin somewhat heightened — motion of the limb almost entirely impeded by the pain and swelling.

No suspicion of aneurism having been awakened at the first examination, such topical applications were directed as were supposed would have the effect of mitigating what would seem to be the result of inflammation. The bowels were at the same time kept soluble by saline laxatives. Under this treatment, the pain and swelling, together with the general febrile affection, subsided with considerable rapidity. The two former, becoming at the same time more circumscribed, and confined to a single point, the knee, a careful examination was again made, and a true aneurismal tumor was discovered on the upper and inner side of the ham.

The nature of the disease having been explained to the patient, he cheerfully submitted to the operation for tying the femoral artery. This was undertaken, by making an incision, two and a half inches in length, on the inner edge of the sartorius muscle where it crosses the triceps. The sartorius having then been drawn a little aside by an assistant, the artery was discovered in its appropriate sheath. This having been pierced, the common aneurismal needle, armed with a ligature, was passed under the artery, and the ligature tied. The application of three straps of adhesive plaster to the reunited integuments completed the operation. The patient gradually recovered, and was able to walk without assistance in about a month from the operation.

In conclusion, it may be asked, why all the usual symptoms of aneurism were for so long a time absent in this case? Was it not because of the pressure exerted upon the tumor by the fluid effused in such great quantity into the cellular membrane about the knee and throughout the whole limb? And in addition to this state, may not the aneurismal sac have been filled in a great measure by a coagulum, which, being supported and protected on all sides by the firm and equable pressure of the effusion, tended to bring the column of blood in the artery within its proper diameter? If one or both these conjectures be true, and could have been ascertained to have been so, and if these processes be considered as the efforts of nature to restore the integrity of the artery, was not the interruption of these processes, by the administration and application of remedies, an injudicious interference?

U. S. M. Hospital, Chelsea.
March 2d, 1835.

Art. II. — Legislative Protection.

[To the Editors of the Medical Magazine.]

Messrs. Editors — In your notice of the petition to the Legislature of the State of New York, in behalf of the Botanical Practitioners, I observed, with very great satisfaction, the following sentence. 'We do not, however, place reliance on legislative enactments for checking empiricism, nor dread serious consequences from their repeal.' It must be obvious that all the legislative interference for protection of the regular practice of physic, both in Great Britain and this country, has hitherto had very little effect in preventing empiricism. It has been my prevailing opinion, for several years, that the laws made to protect the medical faculty, and for improving the healing art, have rather increased the evils they were intended to remedy. Medical associations, societies and colleges, have just the same right to be incorporated as other bodies, and ought to be allowed to make by-laws for regulating the conduct of their own members. They have been undoubtedly of great service in recording and diffusing knowledge. But, in no free government, have they as yet made any decided progress in suppressing quackery. They seem to give a false dignity to the profession, having the appearance of forming monopolies, and thus rendering the members liable to suspicion and envy. Whenever the public jealousy is excited in this way, there is always a disposition to side with the weaker party, which is complaining — no matter whether with truth or not — of injustice or oppression. The very laws themselves are made a pretext for exorbitant charges. I once knew, in a country town where the physicians usually charged half a dollar a visit, an empiric meet with full employ, at a dollar and a half a visit, paid in advance, he giving as a reason for his extra fee, that he could make no professional charge, which would be valid in law.

It was formerly supposed, that no art, science, trade, or profession could flourish, without the aid of guilds, monopolies, and privileged associations. It was even imagined, that religion could not subsist, without the fostering aid of government. Now, I would ask, which one of these most important concerns for civilized society, has ever suffered from being set free, and allowing any person to engage in it who pleased, unembarrassed by legal restraint? The great objection which is usually made, that 'mankind in general are not judges of the individual merit of the members of these various occupations,

and therefore they ought to be licensed by a proper board of examination, before they are with safety allowed to engage in their respective employments,' has been demonstrated, in this country at least, to be of no practical utility.

I would not hinder these professions and occupations from forming associations among themselves, publishing their own regulations and terms of admission into their body, and recommending their members to the patronage of the public. If things are left entirely free, society in general, will soon learn the character of these associations — just as the credit of a bank or other institution is established — so that a degree from any particular college will be valid, just in proportion to the reputation of the corporation. If the public prefer a Thompsonian certificate to a degree from Philadelphia, be it so; they are not to be cured of their madness by legislation.

If the body of regular physicians only adhere to their own rules, in their intercourse with each other, and with their patients, if they are careful to admit none but those who are well qualified into their society, and study to keep up with the discoveries and improvements of the age, the world cannot long remain ignorant of their merits, and they will have very little reason to complain of want of patronage, or of the intrusion of empirics.

I am not for interfering, in any respect, with the charters of medical colleges and societies, leaving them to manage their private affairs as they do now, and as much better as they please, except I would remove all penalties for practising without license, and would subject the regular physician to no legal embarrassment in the collection of his debts. I have no fear, that the public at large will ever be so stupid, as to prefer a Thompsonian to a graduate of Harvard University.

A profession must make itself obviously useful and necessary, and then there will be no lack of that kind of patronage which is worth having. If there is not spirit, industry and emulation enough in the medical faculty, to make themselves obviously superior to empirics, it must be their own fault. If they possess real eminence, and as a body conduct themselves with dignity, affability, and courtesy, they cannot long be undervalued by their fellow-citizens, and will have no need of keeping up the appearance of monopolies and extensive privileges. These privileges, however, are apparent and not real, their incumbrance being greater than their support. A crutch, to any but the lame, is a burden.

JATER.

Art. III. — Abstract of the Second Annual Report of the Trustees of the State Lunatic Asylum at Worcester, Dec., 1834.

This interesting Report brings before us a melancholy yet pleasing summary of facts. The idea that in two years, 270 individuals have been collected in one Institution, in our own commonwealth, deprived wholly, or at times, of the distinguishing trait of humanity, and more pitiable in our eyes than even the brute, is surely a melancholy consideration. But the fact that so many have been collected from abodes of wretchedness and neglect, where the majority of them would probably have existed the remainder of their tedious lives without the prospect of improvement, and placed in an institution where they are as comfortable, and are rendered as happy, as their condition will admit, where there is a reasonable prospect of restoration, and where friends may commit them with confidence, relieved from the anxiety and pain which their presence must always occasion, must be a source of consolation and congratulation to the benevolent mind. We extract such passages from the Report as interest the medical profession.

"The Hospital has been in operation very nearly two years. How far the Institution was needed, may be learned from the fact, that, almost from the first moment of its being opened, the building has been filled with inmates; and during the last year, a large number have applied for admission, for whom no accommodation could be furnished. In all, 272 patients have been received into the Hospital, and 154 have been discharged — leaving, on the 30th of November, 118.

"The peculiar character of this Institution should always be borne in mind, in forming a judgment of what has been accomplished, and in running a contrast of its results with those of any other Institution of the same general character. This Hospital is the receptacle of all persons arraigned as criminals, but found, by the proper judicial tribunals, to have committed the offences while in a state of insanity. It is the receptacle, also, of all lunatics, who are adjudged to be so furiously mad, as to render their continuance at large manifestly dangerous to the peace and safety of the community, and of another class — a large one in all communities — that of pauper lunatics. These circumstances very essentially distinguish this Institution, as a Lunatic Hospital, from other Institutions

of the same kind, both at home and abroad, and cannot be kept out of sight without injustice.

"The class of *incurables* now embraces, and probably always must embrace, a large proportion of all the inmates of the Hospital. This fact is an important one in reference to the success of the Institution. Of the whole number, 118, in the Hospital, over 70 belong to this class. While the return of so large a body of our fellow-beings to the bosom and business of society, is for the most part hopeless, the State may well console itself with the reflection, that their condition here is very essentially improved. The maniac of the most ferocious character, has here been, not indeed cured, but tamed and restored to the comforts and decencies of life. The experiment of this institution has abundantly and happily shown, that there are very few cases of derangement or obliquity of intellect, which may not be ameliorated by the kindly influences of humane treatment.

"With so large a proportion of those deemed incurable, the annual average of cures must be sensibly affected. And yet, even in this respect, the Trustees believe there is cause for no small degree of satisfaction and gratulation. During the past year, 119 patients have been received into the Hospital; of these, 55 were old cases, and 64, recent ones. In the same period, 115 have been discharged; of these, 49 were old cases, and 66 recent ones. Of those discharged, 64 were cured — 22 improved — 16 stationary — 4 idiotic — 8 have died, and one has eloped. The cures amount to $55\frac{3}{4}$ per cent.

"By an examination of the tables of 14 French, and 12 English Hospitals, only two are found — one English and one French — in which the proportion of cures is a very little larger: and both of these were private institutions, where a selection of patients could be made. In 5 American Hospitals, running through a period of more than one hundred years, the proportion of cures is less.

"Of the 49 old cases, discharged during the year, 10 have been cured, 16 improved, 14 are stationary, 4 have died, and one has eloped — the cures amounting to $20\frac{1}{2}$ per cent.

"Of the 66 recent cases, 54 have been cured, 6 improved, 2 stationary, and 4 have died — the cures amounting to $82\frac{1}{4}$ per cent.

"The average of recoveries in this Hospital ($55\frac{3}{4}$ per cent) may very properly be contrasted with that of several foreign

public Hospitals. In 13 in Great Britain, the average is 35 per cent. In 5 French Hospitals, it is 43 per cent. In four in Germany, it is 31 per cent.

"The average number of patients in this Hospital, during the year, has been 117. Of these 8 have died, which is a proportion of 1 in $14\frac{5}{8}$, or $6\frac{4}{5}$ per cent. In French Hospitals, where the tables have been examined, the average of deaths is 22 per cent; and those of England 24 per cent.

"The number of town paupers in the Hospitals, at the close of the year, was 47; and of State paupers 32. Eleven have been received during the year by order of the higher courts. Of the 272 patients, that have been in the Hospital, 163 were admitted by judicial authority, and 109 were private patients: 165 were males, 107 females; 117 were recent cases; 155, old ones. Of the 36 charged with high offences, who have been committed to the Hospital since it has opened, 18 attempted homicide, and 9 actually committed the crime.

"The public ought to be more deeply impressed, than they seem as yet to have been, with the importance of placing all cases of insanity, while yet *recent*, under proper medical treatment. Nearly all patients laboring under recent attacks, can, if subjected to seasonable appliances, be restored to soundness and usefulness.

"An experiment, to test the benefit of agricultural labor to the inmates, and its advantages to the Institution, has been tried the past season, and has resulted most satisfactorily. Labor is deemed an important means of cure in old cases, and is greatly beneficial to the inmates, affording them employment and recreation, of which they are at all times very desirous. It is believed, that an appropriation for additional means of giving occupation to the patients — such as shops for various mechanical and handicraft pursuits — would answer a valuable purpose.

"It has already been stated, that the Hospital has been constantly full during the past year. For a period of 5 months, an accurate record was kept of the number of applications for admission. The whole number was 93: of these, 47 individuals were received, and 46 were necessarily rejected for want of room."

Of 219 cases the supposed causes of Insanity are as follows. Fanaticism and religious excitement 16; Intemperance 56; excessive use of Tobacco and Snuff 3; disappointed affection 7; unhappy marriage 2; anxiety on marriage 1;

jealousy 2; family trouble 11; masturbation 10; nymphomania 1; satyriasis 1; loss of property 9; pecuniary embarrassment 2; anxiety about property 2; fear of poverty 4; abuse from parents, husband, &c. 5; sickness and loss of friends 6; parental indulgence 1; disappointed ambition 2; wounds of the head 5; repelled eruptions 6; following fever 5; measles 1; puerperal 5; apoplexy 1; epilepsy 1; lightning 2; Ill health 18; excessive study 1; hard labor 2; congenital 1; unknown 42.

There are recorded as hereditary 56; periodical 46; paroxysmal 23; nearly idiotic 5; idiotic 1. Some cases are of course recorded as at the same time hereditary, periodical and paroxysmal.

Art. III. — Improvements in the School of Medicine, Paris.

The following is an extract of a letter from Dr. Dugas, Professor of Obstetrics in the College of Augusta Ga. to Dr. Charles T. Jackson of this city. We publish it, because, on reading it, one cannot fail to draw a contrast between the advantages possessed by students in our own country, and those in the French capital. The account of the hospitals, which may be found among our Collectanea, will be read with similar feelings.

'I was highly gratified to see the rapid improvements which are daily making at the School of Medicine. Since Orfila's appointment to the Deanship, he has introduced immense ameliorations and additions to the means furnished for the acquirment of medical knowledge. The dissecting rooms are altogether new and comfortably fitted up, and on the same lot a spacious building has been erected for practical chemistry, where the students in classes, and with a demonstrator at each table, are carried through all the necessary manipulations. The garden has been beautifully arranged, and contains all the plants used in medicine, so labelled, that medical botany is also taught *practically*. The lands on each side of the *Avenue du Jardin du Luxembourg*, have been appended to the school for the same purpose, and also for keeping animals, whose products are used in medicine. The dissecting rooms, heretofore attached to each hospital, are abolished, and a large establish-

ment for those studies erected a little beyond *La Pitié*. The *Hôpital de Perfectionnement* is finished, and will receive none but selected, and, consequently, interesting cases.* It will have Clinical Lectures not only of Surgery and Medicine, but also of Obstetrics, &c.

'These are some of the changes which have been made in the short time since my first visit, and many more were in contemplation when I left. I assure you, that I never felt more the insufficiency of the means afforded in our own country; and it is truly lamentable that we should remain so inactive with such an example before us. When will our States feel a proper interest in the education of youth? We have an abundance of primary schools, but we need liberally endowed institutions of a higher order. It is truly surprising, that a democratic government should permit none but the wealthy to become learned, for it certainly requires a small fortune to receive a collegiate and professional education here. Your state seems to be at present the most enlightened in the Union, and I anxiously look for it to set the example. Let her establish a *Sorbonne*, and others will do the same. Our state gave $10,000, and takes to itself great credit for so doing, but never would have been thus generous, had not others led the way.'

Augusta, Ga. Feb. 1835.

COLLECTANEA.

Aconitum Napellus, in Neuralgic Pains. — We make the following abstract of an article on the Monkshood, by "Medicus" from the London Medical and Physical Journal.

The Aconitum Napellus has had various degrees of reputation as a medicine, since it was first used by Stoëk about the beginning of the fifteenth century. It has frequently been highly extolled for relieving neuralgia, and the pain of chronic rheumatism and other diseases. The late Dr. Duncan says, "I have lately used it with decided, though not always permanent success, in some cases of sciatica, and its effect in suspending the pain was always accompanied by a tingling sensation in the affected parts, sometimes

* It is intended to receive two cases of every disease, for the purpose of Clinical Lectures.

increasing to such a degree as to render the intermission of the remedy necessary, when the pain would return, but mitigated; and thus, at last, by the repeated exhibition and omission of the aconite, the disease was finally removed." In these cases the aconite was given internally, and I have never heard that it has been used as an external application.

Of late years, the active principle of this, as of many other plants has been supposed to reside in an alkaloid. Dr. Roots has taken advantage of the discovery of the alkaloid aconita, and thus, has been able, not only to apply the remedy in a concentrated form, but has avoided the disappointment which may arise from the uncertain strength of the leaves or extract.

He then details a case of severe pain in the course of the sciatic nerve and its branches treated for six months by Dr. Roots, who employed quinine, iron, veratria, &c, carrying them to such an extent as to give a scruple of sulphate of quinine, an ounce of subcarbonate of iron, and a third of a grain of muriate of morphia, every six hours. The benefit of these remedies was only periodical or partial.

On the 25th Nov. he ordered the following ointment:

℞ Aconitæ grs. ij.
Ung. Cetacei ʒi. ft. ung.

a third part of this was to be rubbed on the affected part, night and morning. On the 28th she stated that after each application of the ointment, the parts rubbed had become hot and smarted, but this was quickly followed by numbness. After the third application the pain was a little relieved, and after the fifth, the amendment was very remarkable. The paroxysms were much diminished in severity, and did not continue more than one or two hours. The pain which had formerly been very acute, she described as being much less severe, and called it "a burning twitching." The parts were less tender on pressure, and she could sit up without causing pain in the gluteal muscles, which she could not do three days since. The ointment was afterwards used three times a day when the report is as follows. The pain returns every other night, but is gradually decreasing in duration and severity.

There is a man in Luke's ward, under Dr. Roots, who has a painful affection of the sciatic nerve, for which he used veratrine ointment for some time without any benefit. He has used the aconitine for a week, and a very decided mitigation of the pain followed its application.

Dr. Roots informs me that he has used the same remedy in private practice in three cases with similar success.

Paris Hospitals. — We find in the London Lancet, a connected view of the Paris Hospitals, and of the means by which

these immense establishments are maintained. We shall from time to time present the account of some of the principal hospitals.

The establishments for the relief of the sick and infirm at Paris may be distinguished into two kinds, — one consisting of the hospitals, properly so called; the other comprising what are denominated 'hospices,' or houses for the reception of infants, and of old people who are affected with diseases supposed to be incurable.

There are fourteen hospitals scattered in different parts of the city, and of these, the most extensive, the oldest, and the most celebrated, is the *Hôtel Dieu;* next in rank to the Hotel Dieu comes the *Hôpital de la Charité; La Pitié; St. Louis; Hôpital des Enfans Malades, &c.*

The *Hospices* are eight in number; the two chief are *Saltpetrière* and *Bicêtre,* containing, one 5400 beds, the other above 3000.

The number of patients admitted into the civil hospitals of the city of Paris in 1807 was 37,473; in 1817, this number amounted to 41,000; and in 1827 it had reached the sum of 53,000; the average admittances for seven years between 1819 and 1825, was 47,166, giving a proportion of 1 to 48 of the whole inhabitants of the city.

The average duration of time which each patient remains in the hospitals is 35 days, and the mortality is as 1 to 8.37.

The expense of keeping up the hospitals and hospices, which is defrayed by a few legacies, but chiefly by taxes raised on the theatres, on the pawnbrokers' shops, &c. amounts to about 2,700,000 francs for the former, and 3,000,000 for the latter, or 1,080,000 and 1,200,000 pounds sterling; and each patient costs in the hospitals one franc, fifteen sols, in the hospices one franc seventeen sols, per day.

The hospitals and hospices are under the exclusive direction of a committee called the 'Council General of Hospitals,' named, we believe, by the government, and at present composed of the Prefects of the Seine and the Police, the Dean of the Faculty, the President of the Chamber of Deputies, and five or six marquises, dukes, barons, and commoners. The executive part is entrusted to a 'commission administrative,' and each principal hospital has an agent *de surveillance,* who lives in the establishment, and who directs all the interior concerns, the police, expenses, &c. The surgeons and physicians of the hospitals are appointed by the Minister of the Interior, and on the recommendation of the Council General, who send in to him a list of three names, usually selected from the medical officers of the *Bureau Central.* However, from a late incident it would appear that the Council General assumes the nomination, and only refers to

the Minister on special occasions. To fill the office of head physician the candidate must be at least fifty years of age, and have been employed during ten years in the civil or military hospitals; for physician it requires forty years of age, and twelve years of doctorate. The pupils attached to the hospitals are distinguished into *internes* and *externes*.

The *internes* have the charge of the patient during the absence of the medical men. They are bound to make the evening visit, administer any pressing assistance which may be required on the moment, keep an account of the cases, &c. The *internes* are appointed by concours, from candidates of all nations. Their office lasts generally for four years. They are lodged, and have about 20*l.* per annum, fire, &c.

The *externes* are also chosen by concours. Their duty is to aid and supply the internes. Besides this, each medical officer is attended, during his visit, by an *eleve en pharmacie*, who acts as apothecary. And in the four hospitals where the cliniques of the faculty are given, there is a *chef de clinique*, whose duty it is to collect observations, and make the autopsies, &c. for the professor. They are appointed by the dean, and have 20*l.* per annum, with lodging. Finally, the duty of nurses is performed by the *sœurs hospitaliers*, better known as Sisters of Charity. There is about one to every five or six patients.

Patients, desirous of being admitted into the hospitals, must address themselves to a committee, who sit near the *Hôtel Dieu*. This, the *bureau central*, is composed of twelve physicians and six surgeons, all chosen by concours. They examine the patients, and give them tickets of admission to their special hospitals; but in any case of emergency, the patient is admitted by the agent de surveillance, on the advice of the interne.

Menstruation at Advanced Periods of Life. By Robert Semple. — I have always considered menstruation as a very important function in the female economy. I deem it proper for medical men to lay before their brethren all unusual cases that may occur in their practice. Having been engaged more than twentyseven years in public practice, and not having met, till within these few years, with any cases like the following, I think it right to send them to you for insertion in your publication. I have read the Medical Gazette since its commencement, but I do not remember any similar cases recorded in that periodical.

Sarah Johnson, aged 87, was attended by me in 1830, in the workhouse of the Liberty of St. Andrew's, and menstruated freely, but she in a few days after died. She complained of considerable pain. The fluid did not coagulate.

1830. — Ann Lovell, aged 75, a patient of mine, in the Lib-

erty of Rolls workhouse, was attacked, the early part of this year, with violent menorrhagia. The common remedies, inf. rosæ, acid, &c. removed the complaint. The fluid did not coagulate. This woman has continued at irregular intervals to menstruate till the date of this communication : she menstruated last week.

Mary Waller, aged 67, placed herself under my care, in the Infirmary for the parish of Islington, also in the year 1830. She was then laboring under a violent attack of menorrhagia. The fluid did not coagulate. She continued two or three years on my list, and died from exhaustion. The usual remedies relieved this woman. It struck me as curious, that in three public establishments, distant from each other, three similar cases should have occurred in my practice.

Mary Dick, aged 80, was attacked at her own residence, with an abundant flow of the menstrual discharge. When I saw her she was in great pain. She said she had not been unwell for 30 years before. Opiates relieved her, and she finally got well. This case occurred in the year 1829.

Mary Brown, a nurse in Islington Infirmary, is at the present time menstruating : she is nearly 80. She says her menses ceased when she was 40 years of age. She has had the discharge now regularly for two or three years, and at monthly periods. Dover's powder relieves her.

Ann Lovett, about 80 years of age, a bed-ridden patient, now under my care in the Infirmary of Islington, bleeds one month at the nose, and the other month menstruates regularly : the menstrual fluid does not coagulate. When the menses ceases, leucorrhœa appears. She requires aperient medicines, and occasionally zinc lotions. This patient's case is similar to Lovell's mentioned already in this paper.

A female consulted me, about two years ago, for an attack of the erysipelas on the face and arms. She stated that she menstruated at 17, and continued to be regular till 30 years of age, when the catamenia finally disappeared. She was, at the time when under my care, 44.

In the year 1833, Mary Owen, aged 77, a pauper patient in the workhouse of the Liberty of the Rolls, was placed under my care, with an abundant menorrhagic discharge. She was in much pain. She had not been in such a state, she said, for these last thirty years. In a few days, however, she died.

1833, Aug. 31st. — Charlotte Kiernan, aged 71, a pauper patient in the last-mentioned institution, applied to me, with abundant colored discharge from the uterus. She was in much pain. Purgatives and opiates relieved this female. She told me 'she was in the same state that she was when at the age of 20. This woman is now quite well.

Mrs. Gray, a nurse at one of the public institutions under my

charge, aged 55 years, told me, that seven years ago her menses ceased, but for five years she had a monthly discharge of blood from the nipples. Her health was unimpaired.

It is the general opinion, that when aged females are attacked with this peculiar discharge, they are sure speedily to die. My experience does not warrant me in forming this conclusion, for several of my aged patients subject to this infirmity are now as well as ever they were, and very likely to continue so; nor do I think they will die, except from extreme age. — *Lond. Med. Gazette.*

Treatment of Ringworm with Pyroligneous Acid. — About a year ago, Mr. Wigan of Brighton, England, in a circular to the medical profession, recommended this remedy for ringworm. The mode of using it was as follows. After having decided that the disease was genuine ringworm, he caused the head to be shaved, and applied the strong acid, diluted with one third its volume of water, by means of a soft shaving-brush. The head was kept thoroughly wet for two minutes. The effects are, some transient pain, and the diseased spots are immediately rendered bright red, though they could not be previously distinguished, and thus the whole extent of the disease is known. The affected parts are then to be soaked for fifteen minutes with acid in its full strength — this is to be done carefully and steadily by the *surgeon's own hands.* A second or third application, with intervals of two or three days, will always effect a cure — a thick scab generally results, which is raised by the growth of the hair, and is to be removed by the scissors, when raised high enough to pass them under it.

This method having been tried by several practitioners without Mr. Wigan's uniform or marked success, several notes were addressed to him in regard to his continued confidence on further trial. He replied that further experience did but confirm him more and more in the absolute efficacy of the remedy. He says, that the main cause of disappointment has been, that he did not state the absolute strength of the acid he employed — they using that usually sold, viz. two parts acid and one part water, making the 'distilled vinegar,' while that which he used would be as strong as theirs when diluted with eleven parts water; consequently, just *eight times stronger.* — *Lond. Med. Gazette.*

New York Dispensary. — According to the report of the Managers of the New York Dispensary, no less than 22,444 persons have been supplied with medicine and faithfully attended to, gratuitously, either at the Dispensary, or at their own houses, within the last year.

Acetum Opii Sedativum. — A preparation to which Dr. Elliotson has given this name, has been prepared and recommended by J. H. Horne, surgeon, in the treatment of Mania, Melancholia or Puerperal Mania. It is considered highly worthy of trial by Drs. Elliotson and Paris. His formulary is as follows. Take three times the quantity of the best opium, reduced to a fine powder, that is ordered by the London Pharmacopœia, for two pints of tincture; add to the opium two pints of dilute acetic acid; after they have digested a few hours, add to them six or eight pints of rectified spirits of wine; macerate about seven days, then carefully filter, in order to separate the insoluble parts of the opium. Introduce the liquor into a retort, accurately closed, and distil off the spirit. If the distillation be carefully conducted, the result will always prove of one uniform strength, one minim equivalent to three of Tr. Opii, and free from spirit, and will keep unchangeable for an indefinite time. — *Ibid.*

Analysis of the Brain. — According to Mr. Couerbe, the brain, when examined with a powerful microscope, appears to be composed of globules, which are slightly elliptical, and are larger in the grey substance than in the white. These globules are coagulable by acids, like those of milk and blood, and by a great number of other substances.

Mr. Couerbe finds in the brain,

1. A pulverulent yellow fat, *stéarconote.*
2. An elastic yellow fat, *cérancéphalote.*
3. A reddish yellow oil, *éléancephol.*
4. A white fatty matter, *cerebrate.*
5. Cholesterine, *cholestérole.*

Added to these are the salts found by Vauquelin, lactic acid, sulphur and phosphorus, which form a part of the facts abovementioned. A particular account of these substances, and the manner in which they are obtained, may be found in the London Medical and Surgical Journal, Jan. 17.

Proscription of M. Dieffenbach. — In the French Lancet of Dec. 18th, we find the following piece of intelligence, which requires no comment.

M. Dieffenbach, surgeon to the king of Prussia, and to the Hospital of *La Charité* of Berlin, &c, lately paid a visit to the French capital, with a view of introducing more particularly to the notice of our surgeons some of his brilliant operations. During his stay in Paris he visited certain distinguished French authors whose works are forbidden to be admitted into Prussia. On his return to Berlin M. Dieffenbach (the last mentioned fact becoming known to the authorities in that city) was dismissed from all his state and other public appointments.

Reduction of Inverted Uterus. — Mr. Dickinson of Macclesfield, reports a case in which he reduced a uterus after it had been inverted twentyseven hours. Authors are generally of opinion, that it is irreducible after the lapse of an hour. There had been free hemorrhage, and a small dose of laudanum and spirits ammon. aromat. were given. It was carried up upon the hand, and pressure with the knuckles and ball of the thumb was made upon the fundus, until slowly, and almost imperceptibly, the uterus was restored to its natural state; no bad symptoms ensued.— *Lond. Med. Gazette.*

Cholera. — This destructive malady has lately appeared again in Marseilles and Versailles. In the former city it has attacked, by preference, the classes of society whose circumstances are the most easy, and who reside in the most healthy parts of the city; not one in the poor and dirty streets having been attacked. At Versailles it has not commenced in its ordinary dreadful form, neither have those affected suffered from the violent cramp, which usually attends this disease.

EDITORIAL NOTICES.

Value of Protective Laws.

The policy of legislation with a view to the suppression of empiricism, is deserving of consideration. On this point, we have the pleasure of presenting to our readers the observations of a highly respectable practitioner, to whom we offer our thanks for his approbation and attention, which, as it is ever our desire to merit, it is grateful to receive. We cannot forbear to add an expression of his, communicated in confidence to us. 'I have long thought our laws,' says he, 'to be a kind of snare, catching those whom they were intended to protect. The people want to be free to be poisoned by quacks, when and how they please; and I see no reason against gratifying them.'

We agree with our correspondent, that improvement of the profession, so that admission within its portals, and a place among its followers, shall be a sufficient guarantee of worth, sci-

ence and skill, is the first great step towards checking empiricism. Legislative restrictions can avail nothing, unless met by the confidence and support of the community: and supposing them to be strictly applied, it is extremely questionable whether a calling like ours, should need or ask protection, other than that derived from a full demonstration of its utility, and the worthiness of those engaged in it: — whether it should not scorn extorted bounty, and trust to its own dignity in repressing irregular intrusion.

If, as is admitted, empiricism has become a vast and accumulating evil, have we ourselves been wholly guiltless? Has it not been common to indulge and express open scepticism, or even infidelity, in the value of our art? Not particular, but general: not only as to those obscure points in which doubt is the friend of established truth, but a sweeping disbelief of its benefits and its claims? — Is it not this which has in past times obtained for medicine the unenviable reputation of being purely conjectural, founded upon hypothesis, unsupported by fact, distrusted, or even derided, by its very followers — a labyrinth without a clue, in which all are alike blindly groping — a mere mercenary pursuit, in which he will be most successful who can best play with the humors of men, flatter their vanity, or wink at, and share their follies. Add to this, the more than coolness towards each other, generally manifested in our ranks, the bitter personal feuds, profitless and acrimonious controversies continually arising, and there is little wonder that our collective influence is so sadly diminutive. But let these things be corrected, the character of our profession, and of those who enter it, be divested of all that tends to degrade it, the bitterness of jealousy thrown off, a hearty co-operation rendered in the great work of advancing its interests, purifying its morals, enlightening its mind, our good faith established, and the public will yield us a fair hearing.

Nor should any proper opportunity of bringing the evils of quackery, direct or indirect, before the community be neglected; not merely those aggravated instances of malpractice, to use no harsher term, of daily occurrence, but the system as developed and applied, and the details connected with it. Upon this subject, we solicit the attention of our country brethren, within whose experience much interesting matter must have accumulated worthy of being laid before the medical public.

Pauperism and Gratuitous Attendance.

A pamphlet compilation of extracts from the reports of the Royal Commission of Inquiry into the Operation and Administration of the English Poor Laws, has recently come under our notice. It contains matter of deep, and to medical men, of peculiar interest: for if our art goes beyond mere routinism, it aims at elevating the mind, as well as administering to bodily ills; at perfecting our race in all its relations; and by ameliorating the unfavorable conditions under which a majority are born and live, it strives to render existence as happy, and extend its term as far as possible. 'Pauperism,' as exhibited in the work before us, is opposed to all this: it prostrates the intellectual and moral powers, obliterates the social affections. checks the development of good, and gives fearful vigor to the growth of idleness and vice. To the physician as a philanthropist, therefore, the subject is of importance. But it touches us also in another point, and one upon which we are always sufficiently sensitive — our interest. Wherever pauperism prevails, we bear a double burden — pecuniary and professional. Others do their part if they comply with legal exactions for supporting the pauper; we do this and more. He receives from our purse, but is not the less ready to draw upon our time, and in no case do we afford relief with the consciousness that it is so ill bestowed, as upon the able-bodied, vicious pauper.

It may be urged, that the burden is yet comparatively light, the ill consequences exaggerated. Beyond the boundaries of our large cities it may be so: but within them, we appeal confidently to the profession, whether indiscriminate charitable relief, public or private, is not creating a class of paupers who will soon vie with the worst of the species referred to in the English reports.

It is the duty of every good citizen, to lend his influence towards discouraging the extension of this system: it is our duty professionally, to do this by curtailing the measure of gratuitous aid, and insisting upon remuneration proportionate to the patient's ability. Instances occur, and no man meets them so readily as the physician, of industry struggling with sore trials, hardly able to supply the daily wants of life, where professional service is reluctantly sought and more gratefully appreciated; but in other and more numerous instances, it is

looked upon as lawful prey, to be demanded at all times, and under all circumstances. In such cases, the vices of the man are his masters, and to them alone he renders fee or reward.

Elements of Hygiene.

Influence of Atmosphere and Locality; Change of Air and Climate; Seasons; Food; Clothing; Bathing; Exercise; Sleep; Corporeal and Intellectual Pursuits, &c., on Human Health; constituting the Elements of Hygiene. By Robley Dunglison, M. D., Professor of Materia Medica, &c., in the University of Maryland. 8vo. pp. 514. Philadelphia: Carey, Lea and Blanchard, 1835.

The ordinary duties of the medical practitioner, are essentially *private*, and although when faithfully performed, they appeal strongly to the gratitude of his patients, — an appeal which is generously answered in our community — they do not establish any direct claim to public consideration. But there is another class of services in which his studies and course of observation enable him to engage with peculiar advantage, and to which accomplished physicians have, in all ages, devoted themselves, which are in the best sense of the term, *public* services, and fairly entitle those who render them to the honorable distinction of public benefactors. Such are inquiries into the origin and natural history of epidemic diseases, the ascertaining the laws of contagion, and investigations, like those whose results occupy the volume before us, into the influence of atmosphere, locality, food, clothing, &c., on human health. On these subjects, the medical philosopher exercises the highest functions of his profession. To the honor of our profession, it must be said, that there has scarcely been a valuable discovery made relating to public or private hygiene, nor a method of preventing disease, either in individuals or communities, ascertained, which is not due to the disinterested, and often self-sacrificing researches of physicians. The knowledge of such facts ought forever to silence the insolent and stale witticisms, and vile insinuations so frequently directed on the profession, which, it must be confessed, are often provoked by its unworthy members, and prompt, instead thereof, expressions of public gratitude like that, which in ancient times erected altars to Æsculapius, and decreed religious honors to many of his disciples.

A large share of this desert belongs to Professor Dunglison,

for his labors in this department of medical service. Under the too modest title of *Elements of Hygiene*, this volume contains a vast deal of authentic detail, relating to the subject, arranged with his usual skill in authorship, and accompanied with reflections, comments and applications of the most valuable and interesting character, both to the medical and unprofessional reader. We were about to compare the execution of this work, in some respects, with that of the same gentlemen's 'Physiology,' but remember that the 'Magazine' has never been favored with an official acquaintance with that valuable publication, and therefore cannot be supposed competent to any such comparisons.

'In this country and in Great Britain,' says the author in his preface, 'Hygiene has not usually formed a distinct branch of University Education, &c.' On this we cannot forbear to remark, that a few years ago, Harvard University was in a good measure an exception to the deficiency here complained of. A short course of lectures was delivered there to the undergraduates, on this very important subject, by the present Professor of the Theory and Practice of Physic, and we well remember, and take pleasure in testifying, how agreeable and highly estimated a portion of our studies those exercises were. We understand that they have been discontinued of late, and whatever exercises may have taken their place, we do not hesitate to pronounce the change any thing but an improvement.

If the accomplished gentleman who delivered those lectures, having found them dispensed with at the college, would overcome his too great repugnance to authorship, he would find that neither his professional brethren nor the public would fail to embrace with eagerness, an opportunity to provide themselves with the valuable epitome of hygienic facts and doctrines, which he would place within their reach by publication.

Legalized Anatomy.

Not long since, we were favored with a communication from a physician in a country village, exemplifying the benefits of the Anatomy Law, and with the satisfactory manner in which he was enabled, almost publicly, to pursue the dissection of a human body. Another instance has now been communicated to us, in which a physician availed himself of this law, though he did not entirely escape molestation.

Dr. Daniel Perley of New Rowley, with three students, undertook to dissect a body, obtained according to law; and though they were upheld by the consent and presence of their intelligent fellow-citizens, yet they were assailed by slander, and injurious surmises, and their windows were dashed in, by the more ignorant rabble. But mark here the operation of the law. Instead of being obliged to fly from their persecutors, with an entire loss of reputation, and the prospect of ever being enabled to resume their station again in that neighborhood, they are enabled to stand their ground, and to come out publicly, in an eloquent and fearless defence of themselves, and of the practice of dissection. Prejudice must be overcome gradually; but a little prudence will enable a physician to revive and pursue his knowledge of anatomy in places where the scalpel was never before heard of.

Medical Prize Question.

The Medical Society of the State of NewYork has adopted the following as a prize question for 1835. *The influence of trades and occupations in the United States in the production of disease.* A premium of $50 is offered for the best dissertation, to be sent in by the first of December next.

Boylston Medical Society.

The following gentlemen were chosen officers of the Society for the ensuing year.

Augustus A. Gould, M. D. *President.*
Henry I. Bowditch, M. D. *Vice-President.*
W. W. Cutler, A. B. *Secretary.*
Nathaniel S. Tucker, A. B. *Treasurer.*

George Hayward, M. D. has been elected to the chair of Professor of Surgery, lately created at Harvard University.

Died, at Dennisville, Me. Benjamin Lincoln, M. D. aged 32, formerly of this city, and late Professor of Anatomy and Surgery at Burlington, Vt.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

SELECTED ARTICLES.

LECTURE ON THE TWO SOUNDS OF THE HEART, BY F. MAGENDIE, PROFESSOR OF PHYSIOLOGY IN THE COLLEGE IN FRANCE.

You have seen, Gentlemen, from what has been said, that the different sounds produced in the human body are accompanied by the same circumstances, and depend absolutely on the same causes, as those which arise from inanimate sonorous bodies. The principles which govern the production of sound in these latter were briefly laid down, and we now propose to apply them to the sounds of the heart, and to show in what an easy and simple manner the bruits, as they are termed, of that organ may be explained, by having recourse to certain physical phenomena. In one respect we cannot say that this is a new subject, for you will find in medical works a multitude of remarks on the sounds observed in different organs, and in the heart particularly, but the results have not by any means been proportioned either to the zeal, the talent, or the number of authors who have written on the subject; on the contrary, you will be distracted by contradictions of the most glaring nature, or bewildered between a mass of theories and explanations, which have no existence save in the imagination of the inven-

tors. All these inconveniences and errors have arisen from the neglect of a principle which I have so often inculcated, "Take nothing for granted, when you have an opportunity of submitting its truth or falsehood to the test of experience; and employ the phenomena which pass before your eyes, the properties of tissues which are recognizable by your senses, for the explanation of physiological facts, rather than recur to principles which are unknown, and for aught we know, without existence."

When you place the ear close to the chest of a man, or a mammiferous animal, you hear a noise evidently proceeding from some body contained within its cavity. This sound is produced by the heart, and, after a little attention, you perceive may be distinguished into two parts, or, rather, you hear two distinct and separate sounds, which physiologists have called the "bruits du cœur." This phenomenon is observable to a practised ear at all times during health; but there are certain forms of disease which develop the action of the heart, and consequently increase the sounds depending on that action, to such a degree, that the most inexperienced may distinguish not only the general fact, but the difference of intensity and tone which characterizes each sound. We may, therefore, assume the proposition, indeed it is one familiar to the whole world, that the interior of the chest produces sounds, or, in other words, gives rise to the development of physical phenomena appreciable by the ear; for as I showed you in my last lecture, the sounds of the human body are nothing else. We shall begin by speaking of the most simple of the two sounds attributed to the heart; but before entering on the subject, it will be necessary to examine certain physical conditions of the chest, and of the organs contained in the thoracic cavity, without a knowledge of which you would be unable to understand or appreciate the observations we have to make.

The heart, as I have before said, develops a sound of a peculiar nature, sufficiently intense to have attracted the attention of medical men and physiologists from time immemorial, although their attention was fixed on anything rather than on studying the phenomena in a physical point of view. To be convinced of this, you have only to look over the great work of Laennec. In the course of his observations on diseases of the chest, and on the connexion which exists between certain sounds and the pathological conditions of the organ producing those sounds,

it was impossible for him not to have noticed various physical phenomena; this he has done with the greatest accuracy and minuteness, but without seeming to be aware that the phenomena so observed were merely of a physical nature, or without attempting to study them in this point of view, and refer them to the true cause, to the only principle by which we can hope to obtain a satisfactory explanation.

Laennec has perfectly described the character of the sounds produced by the central organ of the circulation. "On placing the ear," says he, "or the stethoscope, between the cartilages of the sixth and fifth sternal ribs, near the bottom of the sternum, or over any other point where the pulsations of the heart are felt, a very distinct bruit is in all cases heard. In the natural state, this bruit is double, and each beat of the pulse corresponds with two successive sounds; the one, sharp and clear, resembling the clack of the valve of a bellows, corresponds with the systole of the auricles; the other, more dull and more prolonged, coincides with the pulse, and with the sensation of shock which denotes the contraction of the ventricles. The sound heard at the inferior part of the sternum belongs to the right side of the heart; that of the left side is heard between the costal cartilages. We hear, then, two sounds, which traverse the thoracic points, and succeed rapidly each other, developing a kind of tic-tac noise, like that produced by the action of a watch or other machine; indeed we know that the heart is merely a mechanical machine, destined to give the first impulse to the blood; and as we have the action of most machines accompanied by a peculiar noise, or bruit, so the heart in contracting, gives rise to one of a characteristic nature.

If you attend to the places where those two sounds are heard, you will soon be able to localize each, and to perceive that they emanate from distinct points; one is heard at the left side of the chest, between the interval which separates the sixth and seventh ribs, or at the junction of the sixth rib with its cartilage. Here the sound is heavy and dull, the *bruit sound* of physiologists. The other sound which is sharper and much more clear (the bruit clair,) is found higher up in the chest, and more to the right than the former; it appears to come from behind the sternum, at the junction of its superior and middle thirds. We have now arrived at one step of our investigation; we have been able to localize the two sounds of the heart, not only to show that they are distinct in

character, but proceed from different points of the chest; one is heard near the osseous termination of the sixth rib; the other behind the middle of the sternum, a little to the right.

This is an important point to remember, and we shall have occasion to apply it presently, when explaining the causes of each bruit. Having thus established and pointed out the difference of the two sounds, both as to character and locality, let us endeavor to determine the circumstances attending them. The first sound, Gentlemen, the bruit sound, evidently corresponds with the shock of the heart against the parietes of the chest. In common language, we say, the heart beats, that is, strikes against the ribs, and the vulgar phrase expresses perfectly a fact well known to all medical men; Laennec, therefore, was correct in asserting, that the first sound corresponded with the contraction of the ventricles, and the tendency of the heart forwards from the *redressement* of the arch of the aorta. In this the author of mediate auscultation was perfectly correct; the first sound corresponds with the contraction of the ventricles, and we know that each time the ventricles contract, the totality of the heart is carried suddenly forwards, and the point of the organ strikes against the left lateral parietes of the chest. The cause of this shock or displacement is a different question, and has given rise to a long and animated controversy. Some writers denied the fact altogether, and asserted that the point of the heart approached its base in contracting; others, on the contrary, asserted that the contraction of the heart gave rise to an elongaton of the organ, which was necessary to produce the phenomenon, as the point is placed more than an inch from the thoracic parietes during the dilitation, and could not otherwise strike against the chest.

The falsity of this latter theory was, however, soon demonstrated by Bassuel, who showed, plainly enough, that if the heart became elongated during the contraction, the mitral and tricuspid valves would inevitably be depressed by the tension of the carneæ columnæ, and the auriculo-ventricular openings could not be closed. Let us now turn to the second sound. I have already indicated the point in which it is heard, near the middle of the sternum. It is, thus, you see, removed at some distance from the former; and when you place the ear to the chest, you cannot fail remarking that it is not so accurately fixed or localized as the dull sound, but is diffused over a much greater space. There is, you know, in the heart, an

alternation of contraction between the auricles and the ventricles; the auricles contracting while the ventricles dilate, and vice versa. Now as the dull sound was attributed by Laennec to the contraction of the ventricles, so he explained the production of this second or clear sound by the contraction of the auricles; we shall presently see how far this opinion is supported by facts, when we come to explain the causes of each bruit: in the mean time let me observe to you, that it is a matter of much importance to study the sounds of the heart on a perfectly healthy individual. The necessity of observing this rule is manifest: you can only obtain useful ideas on the abnormal sounds, by having a correct notion of the normal, or healthy ones; the latter cannot be obtained unless the circulating organs of the person submitted to your observation be free from all trace of disease. Thus if the heart be hypertrophied, increased in bulk and strength, if it be displaced from its usual position by an effusion of matter within the chest, or by morbid deposits in the substance of the lungs; if the component tissues of the heart itself, or of its valves (and the latter is an affection of much more frequent existence than is generally imagined,) be altered in any considerable degree, you will have irregular anormal sounds produced, varying in character according to the nature of the morbid affection on which they depend, and calculated to lead you completely astray if you were to mistake the modifications for original and healthy bruits.

It is also right to make you aware, that the two sounds of which we speak, are of a nature not to be transmitted very readily through the medium of the atmosphere to the ear; in fact you will not distinguish them at first very clearly, but with a little patience and practice you will soon hear well enough, especially by placing the ear close upon the chest, and removing all causes of extraneous sound, as the rubbing of the clothes, &c. In some cases the heart beats with extraordinary force, and its pulsations may be heard at a considerable distance from the body, even, it is said, in the neighboring chamber; but on other occasions the heart acts feebly, the bruits are very indistinct, and you will have much difficulty in recognising them.

Let us now endeavor to ascertain the causes which give rise to sounds of the heart, and commence by examining Laennec's explanation. He attributed the first sound to the contraction of the ventricles, relying mainly on this well-known fact, that the shock of the heart, or, in other words, its systole, is isoch-

ronous with the pulse; but not being accustomed to investigate physiological phenomena experimentally, nor holding in view the physical conditions by which they are accompanied, he concluded that because the bruit sound was isochronous with the pulse it depended on, and was produced by the muscular contraction of the ventricles. For the same reason, because the "bruit clair or claquement," as he denominates it, corresponds, in point of time, with the contraction of the auricles, he explains the production of this sound by the muscular contraction of the auricles. Laennec having adopted these ideas, published them in his great work on mediate auscultation, and they were soon admitted universally by all physiologists; for, from the tendency in human nature which I have already pointed out to you, all were disposed to adopt readily, and without previous examination, the conclusions of a man of talent whose opinions were looked up to with respect and even admiration; hence this theory was favorably received by the young physicians of Laennec's time, and since them has been repeated or copied by succeeding authors, as a doctrine upon the truth of which there was not a shadow of doubt.

But we, Gentlemen, who have laid it down as our guiding principle not to admit any proposition, no matter how plausible, or by whose name it may be supported, unless we see the proofs of its correctness, — we, who study and seek to find physical explanations of the phenomena before us, cannot be content with simple naked assertions of physiological propositions. Nothing short of proofs, and satisfactory proofs, will content us; the merit, authority, or talent of the assertor, is not sufficient reason for us; we must, I say, have proofs, and without them an opinion is but an opinion, no matter by what great or distinguished man it may be put forth. In chemistry, in natural philosophy, in almost all the sciences, nothing is admitted without certain proof of its truth; why then should we permit medicine so long to be the victim of theories, or why should those who investigate the laws of life, forget the principles which direct all similar inquiries, and content themselves with embracing the first ingenious theory thrown before them, rather than seek out facts in nature herself, by means of experiment and observation?

The opinion of Laennec on the sounds of the heart, their causes, the circumstances under which those sounds are produced, and, if I may use the expression, their localization, or, in other words, the portions of the organ with which each bruit

is more directly connected, prevailed for a length of time as the current doctrine in the schools ; but at length some doubts began to arise as to the correctness of his explanations, in the minds of reflecting men ; it was perceived that various phenomena were in direct contradiction of his theory ; experiments were instituted, nature was consulted, and if not the whole truth, at least a part was discovered. You are all, Gentlemen, no doubt, acquainted with the phenomenon depending upon the reflux of venous blood in the jugular veins. I have already, in a former lecture, explained to you how this phenomenon depends in great part on the respiratory movements of the chest. When that cavity dilates, the vein empties itself suddenly ; on the contrary, when the parietes of the thorax subside with the expulsion of the air from the pulmonary vesicles, the jugular vein becomes filled with blood, and is manifestly swollen. But this reflux of blood in the jugulars, which Haller has called the venous pulse, recognises another cause beside the respiratory movement. If you examine with some attention a patient whose neck is thin, you will perceive that a kind of palpitating motion is produced in the vein by the contractions of the auricle ; hence, by a very natural train of reasoning, some young physicians were induced to seek whether the venous pulse (which, remember depends on the contraction of the auricle) coincided with the second bruit of the heart, and they found there was no connexion whatever between them ; here you have a fact sufficient at once to overthrow a part of Laennec's theory ; he attributed the second bruit to the contraction of the auricles ; were this true, it should coincide with the reflux of blood in the jugular veins depending on the contraction of the auricles ; but experience has shown that this is not the case. Besides, if you examine attentively the bruits of the heart, by placing your ear on the stethoscope in contact with the parietes of the chest, you will have little difficulty in convincing yourselves that the sounds produced by the organ are altogether independent of the auricles ; in fact, the action of these latter cavities is very feeble and insignificant.

Laennec himself seems to have had some foresight of the objections which might be advanced against his theory, for he soon modified his first opinion, and attributed the second bruit to the contraction of the appendix auricularis ; but this was a mere shifting of the difficulty, and gave no explanation whatever of the way in which the appendix could produce a bruit.

This portion of the auricle is, as you know, nothing but a bundle of muscular fibres, crowning its apex, and arranged in a peculiar manner. Now we can perceive nothing in the structure of the appendix, its mode of action, or its position, by which we can comprehend the production of sound by that body; nor can we for a moment admit with Laennec and some of his followers that the contraction of muscular fibres, independent of all other circumstances, may give rise to the phenomena of sound. It is easy enough to assert this latter proposition, but where are the proofs of its truth? On the contrary, we know that other muscles, when they contract, do not produce the least noise whatever: move your arm, your leg, or any other part of your body, and you will have an immediate refutation of the second theory of Laennec. Indeed, were the other muscles to produce sound bearing the same proportion to the strength of their contractions that the second bruit of the heart does to the muscular action of the auricle, you would have a pretty confusion of noises issuing from all points of the body. Moreover, the question has been satisfactorily decided by experiment. Dr. Weston has made various experiments upon muscular contraction, and it results from what he has observed, that if you place the ear in contact with a muscle in the act of contracting, you hear a peculiar sound, or bruit de frottement, which results from the rubbing of one portion of the muscle against another, or, perhaps, from the oscillation of the elementary muscular fibres; but the sound thus generated in the interior of the muscle is excessively feeble, and never propagated through the external air; indeed, in most cases, the bruit requires to be artificially augmented, to be heard at all. Dr. Weston likened the sound which he thus discovered, to that dull low sound which arises from the rolling of a carriage at a distance, a bruit which certainly bears no resemblance whatever to any sound developed by the heart in a normal state. It follows, then, Gentlemen, from the few remarks which I have just made, that we cannot regard the sounds of the heart as resulting from simple muscular contraction of the auricles, or even of the ventricles, because the contraction of the muscular fibre gives a sound inaudible to the naked ear, and presenting a character widely different from the bruits produced by the central organ of the circulation.

It was Professor Turner who gave the first blow to the hypothesis of the French physician, by arguments drawn from an attentive examination of the venous pulse in the jugulars · you

will find his memoir in the third volume of the Transactions of the Medico-Chirurgical Society of Edinburgh. In 1830, Dr. Hope, of London, made various experiments on animals, with a view of determining the question before us; he laid open the cavity of the thorax in living quadrupeds, and examined the pulsations of the heart in situ; the experiments of Dr. Hope seem to have been made with great care and accuracy, and it results from them,

1st. That the contraction of the auricles precedes the first bruit of the heart.

2nd. That this contraction does not give rise to the development of any sound whatever.

3rd. That the second bruit of the heart coincides with the dilatation of the ventricles.

The facts which Dr. Hope has established are certain, but let us see how he would explain according to them the sounds of the heart. He says that on the dilatation, the various parts of the heart which were before in a state of contraction, are placed in a condition favorable for vibrating, and that the bruit is produced in that manner; the production of sound is, also, according to him, aided by the sudden shock of the blood against the parieties of the ventricle, when that part of the organ dilates and attracts the blood into its cavity.

But this explanation of Dr. Hope, drawn simply from his imagination, falls with the theory which he had overthrown; and for the same reason; because it is supported by no kind of proof whatever.

Since the publication of Dr. Hope's work on the diseases of the heart, various other theories have been in turn proposed and abandoned; thus some would attribute the sounds of the heart to the manner in which the blood strikes against the sigmoid valves, or the pulmonary artery, giving rise to a species of vibration or ebranlement: others to the shock of the blood during the dilatation of the different cavities; others, finally, (as for example M. Rouanet,) to the shock of the blood, in one case against the mitral and tricuspid valves, in the other against the sigmoid valves of the aorta and pulmonary artery. Need I remind you, Gentlemen, that these and various other hypotheses of the same kind are mere assertions, unsupported by any experiments on animals, or observations on the human body, and as such are rejected by us, whatever respect we may have for their authors individually. It is not by inventing explanations for that which seems difficult, or by adopting

without consideration the fancies of others, that we can hope to advance the science of physiology in any one particular. No, Gentlemen, if you wish to form a just idea of the mechanism of the sounds of the heart, you must commence by informing yourselves thoroughly of the anatomy of the organ, and its relation to and connexion with the surrounding parts: you should study carefully the exact position of the heart, the volume, relative consistence and form of each of its component parts, and particularly the relation of each of its cavities to the surrounding hard and soft parts. From the anatomy you should pass to its physiology, and from this latter to its pathological states, which give many useful and important indications; for to form a correct theory of the sounds of the heart, it is not enough to examine the organ during a state of health; you must study the various phenomena resulting from its pathological conditions; you must contemplate the heart at one time beating with the greatest intensity, at another presenting no trace of pulsation, with a complete absence of sound; in a word, you must render yourselves masters of its anatomy, physiology, and pathology, after which you may proceed, with some hope of success, to render an account of the physical conditions under which sound is there produced.

The pulsations of the heart are, as I have just said, in some cases violent, in others not at all perceptible; but in a third series of cases you may have one bruit disappearing, while the other sustains its normal character, and vice versa. I had, not long ago, an example of this anomaly at the Hotel Dieu, and we must account for it, together with various other modifications which occur in the course of disease, or our theory must be abandoned as imperfect.

You all, I presume, have correct notions of the manner in which the heart is placed in the cavity of the thorax; how it is attached above to the great vessels, and below to the central tendon of the diaphragm by means of its fibrous envelope the pericardium: I would also, remind you, that in the normal state the heart is always placed at a certain distance from the sternum and ribs in front, and from the dorsal parieties of the chest behind, which gives it a free liberty of approaching to or retiring from the sternum: on either side, the soft parts which compose the lungs, separate the organ from the lateral parieties of the chest, and at the same time yield sufficiently to permit a very extensive displacement in those directions. Thus while every provision is made for allowing free

motion to the heart in a healthy state, it preserves certain relations of position, which you should always bear in mind when studying the bruits of the circulating system. It follows, as a natural consequence, from the manner in which the heart is, as it were, freely suspended in the centre of the chest, that this organ should often present us with examples of displacement resulting from the action of morbid causes; in fact, during the progress of ascites, or in empyema, where a large quantity of fluid is collected in one side of the chest, you will hear the sound of the heart at a greater or less distance from the natural place, according to the extent of the effusion; and this symptom may lead you to suspect that the normal position of the heart has been altered by the operation of some mechanical cause.

In many diseases then, we have a permanent displacement of the heart; but besides these, during health, the heart at each instant changes place within certain limits. You all, I should think, know what is meant when we say that the heart 'beats;' you know that in its different movements the heart approaches to the parieties of the chest and then retires; when the organ enlarges to admit the blood coming from the venous and pulmonary systems of blood vessels, it retires towards the back of the chest, in order to have more room, to be more free; on the contrary, when the ventricles contract and expel the blood which they have just received, the heart again changes place, and comes forward to strike against the anterior wall of the chest.

Now, reflect for a moment on the nature of the obstacle which it meets, and against which it shocks, at each contraction. The thorax is a cavity in great measure osseous, composed of bone, cartilage, and muscles, which vibrate with great readiness; it is therefore, constructed in a manner calculated to develop and transmit sound with the utmost facility; indeed the chest may even become itself an instrument of sound which is propagated to it along the tracheal artery and bronchi. In many diseases, when you place the ear on the surface of the chest, you hear the voice issue, as it were immediately from the point below your ear, and you may convince yourselves in a moment that, considered as a medium for the transmission of sound, it is very resonant. This is seen when you place any solid body, as a plate of ivory (or you may perform the experiment simply with the fingers,) in contact with the chest, and exercise gentle percussion with the fingers; every

time you strike, the thorax emits a clear distinct sound. If you only bear in mind what I said in a former lecture on the physical conditions necessary for the development of sound, you will perceive that the great part of these conditions is united in the thorax, which, consequently, becomes proper for the transmission of bruits occurring in its interior, and that whenever a solid body strikes against its surface we must have a sound produced in proportion to the intensity of the shock.

This, Gentlemen, is a very simple theory, and, to my mind, gives us a satisfactory explanation of the different bruits of the heart; according to it, the first sound arises from the circumstance of the heart striking with its point against the anterior parietes of the chest; it suddenly shocks against a sonorous body, and must necessarily give rise to the production of a sound, unless it can be shown that the laws of physics here suffer some very extraordinary exception. In the common contraction of the heart, such as takes place during health, the sound produced by the shock just alluded to, is not very plainly pronounced, but if you place the stethoscope on the chest in some patients, especially those who labor under the disease called active hypertrophy of the ventricles, you will see the end of the instrument raised up by each shock, at the same time that a loud bruit is developed.

Again; remark that the position of the heart varies according as the individual examined by you may assume an upright or a recumbent posture, and as a practical deduction, remember that in the first case the sound of the heart will be heard more readily and distinctly, for the simple reason that the organ is nearer to the sonorous body against which it is to strike.

It has often been noticed by others, and it must have occasionally fallen under your own observation, that sometimes, while the patient is in full enjoyment of health, exhibiting no symptom whatever of derangement in the circulating system, you barely hear a feeble sound on placing the ear over the region of the heart, or the bruit may be altogether inaudible. How are we to account, Gentlemen, for this curious phenomenon? It is only to be explained by the theory which I have laid before you. Whenever the point of the heart is separated from the parietes of the chest, either by an accidental circumstance, as the anormal position of a portion of the lung, or in consequence of a morbid product, as in cases of empyema, effusion of water, &c., you cannot have any sound, because the shock of the heart is deadened, or prevented from taking place, by the foreign substance thus interposed.

I have frequently seen examples of the anatomical variety in the position of the lung just referred to; a prolongation of the left lung covered the apex of the heart and thus masked its shock; instead of striking against a hard sonorous body, the point pressed, rather than struck, against the soft yielding portion of lung, which in this way completely prevented the development of its usual bruit.

So far, Gentlemen, with our explanation of the first sound of the heart; you see how far it differs from that given by Laennec, and how we have supported it by physical reasoning alone, laying aside all conjecture and theory, as means unworthy of the science which occupies our attention. It is too late to-day to pass to the second bruit of the heart, let me therefore recall to your mind that the first sound of the heart is occasioned by the shock of the organ against the side of the chest, a circumstance which perfectly explains why we hear the bruit in a particular point, and why, generally speaking, it is circumscribed within a particular space. During contraction of the ventricles, the heart approaches the parietes of the chest; it then retires as it dilates, and you are not to consider this dilatation as slow and gradual; on the contrary, it takes place rapidly, from the sudden rush of blood admitted through the auriculo-ventricular openings. This you will have an opportunity of seeing in living animals, especially in birds, which we shall select for the purpose; you will witness the rapid dilatation of the organ, and the manner in which it produces sound at that time by striking against the posterior surface of the sternum. The whole of the anterior surface of the heart strikes against that part of the chest, and contributes to the production of the second bruit.

These sounds, Gentlemen, have been observed and commented upon by other physiologists before me, but they have not, I may assert, been explained in a sufficient manner, while they have overlooked the essential point of our theory, viz., the sounds being the result of the manner in which the heart *strikes* against the chest during its contraction and dilatation. I propose to demonstrate these two propositions by experiments upon living animals, and by facts drawn from pathology. In our next lecture we shall commence by showing you the heart in situ in the living body, and by a series of proofs which I hope you will find satisfactory. — *Lancet.*

On the Deaths of some Eminent Persons of Modern Times.

By Sir Henry Halford.

Sir Henry alluded to the attention with which his paper on the Deaths of some Illustrious Persons of Antiquity had been received, as the motive for selecting his present subject, and laying before the meeting some details connected with the decease of some distinguished men of more modern times.

The learned President began his narrative by some remarks upon the monarch in whose reign the College was founded, referring to the pictures of Holbein in illustration of King Henry's manly beauty, and to the remains of him which he had seen in his coffin, and to his large arm-chair at Windsor, in proof of his stature. The state of his health in more advanced life, when he became corpulent and unwieldy, made Henry the Eighth a great dabbler in medicine; in fact, he not only prescribed as opportunity occurred, but compounded the drugs himself, as appears by a volume in the British Museum, containing a large collection of the royal *recipes*. The monarch, however, could not avert from himself the evils of mortality, and died at the age of fiftysix, dropsical, and covered with sores.

To Wolsey, the King gave some excellent instructions how to avoid the sweating sickness; but the Cardinal, who escaped that epidemic, died of a malady which the royal physician might more easily have prevented, had he chosen — a broken heart, to which was added in his last hours an attack of dysentery. The Earl of Shrewsbury, at whose house he had been on his road from Yorkshire, encouraged his distinguished guest to think more favorably of his health; but the Cardinal, in reply to his cheering speeches, assured the Earl that he could not live, — discoursing learnedly about his ailment, which he said within eight days, if there were no change, would necessarily produce "excoriation of the entrails, or delirium, or death." This was on the eighth day, when he confidently expected his death, and expired after the clock had struck eight, according to his own prediction — "the very hour (says Shakspeare) himself foretold would be his last."

Edward the Sixth was carried off by disease of the lungs, having had measels, as well as small-pox, the preceding year, which left an obstinate cough behind. He was put under the care of an ignorant woman by the Earl of Northumberland,

by whose treatment his end seems to have been much accelerated. Sir Henry paid a high tribute to the memory of this intelligent and amiable young king, whose bodily powers bore no proportion to the extraordinary energies of his mind; in this respect reminding the learned author of many examples he has met with, wherein ill health in young persons has led to great powers of reflection, the precocity of their intellectual development "compensating them for the brevity of their earthly existence."

Mary inherited a delicate constitution from her mother. The peculiarities of her sex being irregular, and requiring frequent medical treatment, bleeding very frequently repeated, and horse exercise, seem chiefly to have been trusted to. After her marriage the symptoms were referred to pregnancy; but she became pale and exsanguine, and at length died of dropsy.

Oliver Cromwell, in his last illness, one morning asked a physician who had sat up with him why he looked so sad; and being answered, that it became any one to look grave who had the care of *his* life to answer for, immediately replied — "Ye physicians think I shall die: I tell you I shall not die this time; I am sure of it. Do not think I am mad; I speak the words of truth upon surer grounds than your Galen or Hippocrates furnish you with. God Almighty himself hath given that answer." Under this confident expectation of recovering, Cromwell allowed himself to be removed from Hampton Court to London. On the following day he became worse — grew lethargic — then delirious — and died September 3d, 1658. The spleen was much diseased, and filled with matter "like lees of oil." It is difficult, continued Sir Henry, to read the history of this period without entertaining a strong suspicion that Cromwell used those solemn aspirations — that affected intercourse with the Almighty — hypocritically, and with political views. Archbishop Tillotson has remarked, that the above is a specimen of that enthusiasm which superseded hypocrisy with Cromwell; but in modern days, when we meet with such allegations in our intercourse with patients, and find them influencing their conduct, "we think ourselves justified in applying to the Lord Chancellor for a writ *de lunatico inquirendo*."

King Charles II. (according to the account of his physician, Sir C. Scarborough) had just risen from his bed when he experienced an unusual sensation in his head; shortly after which

he fell down speechless, and without the power of motion. An army surgeon, who happened to be at hand, bled him to the extent of sixteen ounces; after which, on the arrival of the royal physician, his majesty was cupped, and other remedies used — such as an emetic, purgatives, &c.; but he expired on the fourth day. "Had there been safety in a multitude of councillors, the king's life must have been preserved; for (added Sir Henry) I perceive the signatures of not less than fourteen physicians to one of the prescriptions." Among the remedies prescribed when he was sinking, was the *spiritus cranii humani* twentyfive drops; which certainly has been improved upon in our modern preparations of ammonia. The learned Baronet here mentioned that he had lately seen a prescription in which a portion of the human skull was ordered, in a powder, for Sir Nicholas Throckmorton. It was dug out of the ruins of a house, in Duke street, Westminister, which had belonged to Oliver Cromwell's apothecary. On examining King Charles's head, a copious effusion of lymph was found in the ventricles and at the base of the cranium; from which Sir Henry is disposed to think that he might have been still farther bled with advantage; adding, that the result of his experience had convinced him, that, if large depletion be not adopted in the first instance, everything else attempted afterwards will be unavailing. It is quite evident, from Sir Henry's account, that Charles II. died of apoplexy, and consequently that his indifference to the solicitations of those about him on religious matters, can only, with charity, be attributed to the effects of his disease.

King William, the Prince of Orange, had a weak frame, and was asthmatic, with a constant cough. He died, at length, of an enormous secretion into the lungs, which first embarrassed, and ultimately prevented, respiration. The lungs were adherent to the pleura costalis, and a fall from his horse, which he had shortly before met with in Hampton Court Park, and by which he had broken his collar-bone, had detached a portion of the adhesion and excited inflammation.

Mary, the consort of William, died of small-pox, and it is remarkable that Bishop Burnet blames Dr. Radcliffe in rather harsh terms, for his treatment of her case. The learned prelate mentions that Marshall Schomberg advised him never to give an opinion upon a military subject; and "I wish (said Sir Henry) that he had received similar council from a physician, and had abstained from remarking on medical affairs."

The censure of the Bishop seems to have been quite uncalled for.

Dryden died of ossification of the arteries of the extremities, such as produces mortification. His body "lay in state, in the College of Physicians, during ten days, and was then conveyed to Westminster Abbey with great ceremony."

The disease which occasioned Dean Swift to expire "a driveller and a shew," was of a paralytic nature; to which circumstance Sir Henry is inclined to attribute that aberration, not to say depravity of mind, which have excited so much scandal.

"Now I believe," said he, "this irritability was bodily disease; and so far from considering the unsocial and untoward mind as influencing the body to its detriment, I would contend that the corporal distemper was the cause of the perverse and unhappy state of the mind; that Swift's irritability was of that peculiar nature which accompanies palsy, the seat of which generally is in the brain. Swift was in the habit of suffering severe attacks of headache, and of dizziness, and occasional deafness, when young; even so early in his life as during his sojournment with Sir William Temple. In process of time, there ensued that plethoric state of the vessels of the brain which required frequent cupping; and at length the obstruction became so great as to occasion an effusion of water into the ventricles, and the loss of his faculties by apopletic pressure. This appeared on examination of the head after death. No doubt this effusion had been preceded by inflammation of the membranes of the brain, and by phrensy. Under these attacks of inflammation and phrensy, he dealt forth his angry denunciations largely; and probably it was in one of these unhappy moments that he composed the Epitaph so injudiciously inscribed on his tombstone in St. Patrick's Cathedral.

King George I. died of apoplexy; George II. of rupture of the right ventricle of the heart.

On the affliction which attended the latter years of George III. Sir Henry did not dilate. One of his latest hours of rational life was employed in dictating a letter to the Princess Amelia, which he committed to the charge of Sir Henry Halford. It was to express his satisfaction that she had received the sacrament, and sought for comfort in religion. The Princess died within two days afterwards, and her august father was deprived of his reason.

Of the last member of the royal family who has departed this life, Sir Henry spoke in the following terms : —

" A kindred spirit to that of King George III. has lately left us, and has been received, we humbly hope, into the mansions of the blessed.

" The Duke of Gloucester's disease was seated in the liver, and involved the stomach in so much irritability as incapacitated it for receiving the smallest supply of nourishment. His powers failed, therefore, and were unequal to the completion of those processes by which his enfeebled constitution attempted in vain to disengage itself from the malady, and to terminate it.

" As the brain was not affected, his mind was left at liberty to indulge its natural propensity to look into futurity, and to anticipate the fatal issue of the struggle of the body with the disease. With a hope, then, full of immortality, and with an entire confidence in the promises of the Gospel, the Duke easily detached himself from this world, and *desired* to begin the life to come. Never, in all my converse with the dying, did I remark more calm resignation, or a warmer piety. The pain of separation was theirs only who hung over his sick bed ; to every one of whom, and to those also who were dear to him at a distance, he bequeathed his blessing, leaving to us all the *rich inheritance of his example.*

" Upon the Duke of Gloucester's merit as a soldier, it becomes not me to descant ; but as a specimen of that bravery which belongs so remarkably to the House of Brunswick (I have it from the highest authority), that when the brigade which he commanded in Holland, in the revolutionary war, was drawn up before the enemy, and could not restrain its fire until it might be given with the best effect, the Duke, that he might prevent it, stepped forth before his soldiers, and interposing himself between his own troops and the enemy, walked deliberately between the two armies.

" Of his conduct in civil life, let the University at Cambridge bear testimony to the prudence and to the spirit with which he defended its privileges in parliament as its Chancellor. His memory will be cherished by that learned body long I am persuaded, and with a most respectful attachment.

" His private virtues, which gave a dignity and a grace to his interior and domestic habits, were manifested by the steadiness of his personal friendship, by his humane care of the poor in the neighborhood of his residence, and by his patron-

age and protection of a thousand charitable institutions; and were recognised and assured by the manner of his departure from life — for, in the spirit of his prayers, 'he died the death of the righteous, and his last end was like theirs.'"

In conclusion, Sir Henry adverted to the disadvantage under which unprofessional writers necessarily labor, in their attempt to develop the motives of human conduct, on account of their inability to appreciate the effects of disease on the mind.

ORIGINAL ARTICLES.

Art I. — Cases communicated for the Medical Magazine.

By Henry C. Perkins, M. D., of Newburyport.

Case 1. — I was called on the 6th of March, 1834, to Mrs. C ———, aged 55. Learned that a week before, she had slipped while walking and injured the left hip. Since the receipt of the injury, she had, up to the present time, attended as usual to her household affairs, although every step was attended with suffering. She could now walk, but experienced considerable pain in the course of the rectus muscle on bringing the left extremity in advance of the other. There being none of the usual indications of fracture or luxation, nothing more was prescribed than perfect rest and an anodyne liniment. — Was called on the night of the 12th, to visit her; found her in bed, suffering under most violent paroxysms of pain, which commenced at the groin, and extended down the front of the thigh. She had used the liniment, but "could not keep still." She had daily gone below, and had this evening walked up to bed and just laid down, when the pains commenced. Under the liberal use of laudanum internally, and anodyne fomentations, the paroxysms gradually became less frequent and violent. She was unwilling to have the extremity touched, and it was left undisturbed for the night, After examination, the limb appeared of natural length and direc-

tion. Nothing unnatural could be discovered, except a slight bruise upon the hip, over and about the trochanter major. General excitement ensuing, she was put upon the antiphlogistic course, and directed to keep perfectly quiet in bed. The quickness of pulse, heat of skin, and pain in the groin gradually subsided. The limb was constantly watched, and the case treated as I had treated fractures of the neck of the thigh bone within the capsular ligament. (For I feared this might, after all, prove to be the fact.)

At the expiration of a month or six weeks, she was taken out of bed, and placed upon her feet, when, for the first time, the limb was discovered to be about an inch shorter than the other, and slightly everted. In the course of time, she was able to walk with the aid of crutches, which she has long since laid aside, and has now only a slight limp, which might be entirely remedied by the high-heeled shoe.

From the striking resemblance of the above case in the kind of injury, age of the patient, shortening, eversion and limping gait, to other cases of undoubted fracture of the cervix femoris within the ligament, there is, I think, reason to believe such was here the fact; the fracture having been incomplete, or the broken surfaces so completely fitted to each other during the first week or ten days, as to permit the use of the limb — an important circumstance, occasionally occurring,* which deserves to be kept in mind in cases of this description, and which shows the propriety of strict confinement to the bed, where from the nature of the injury, this fracture may be suspected.

Case 2. — Mr. ———, aged 24, of spare frame, slender constitution, consulted me in the latter part of June, 1831, respecting "a tumor on the back." He had enjoyed his usual health, which was such as to permit his constant attention to business, up to the last winter, when, after attending a ball, he was exposed to cold, and got, as he supposed, a violent attack of rheumatism. He was not, however, confined to the house but for a day or two. An apothecary gave him a plaster, which he applied to the seat of pain. Soon after, he first noticed the swelling.

On examination, I found a large fluctuating tumor, without pulsation, in the loins, encroaching upon the right buttock. He

* See Amer. Med. Journal, No. 4, p. 453. — Ibid. Vol. 16, p. 519. — Med. Chir. Review, Vol. 21, p. 155.

was advised to have it carefully opened. To this his friends would not consent. In September, he consulted Dr. Warren, who at once pronounced it lumbar abscess, and recommended Abernethy's plan of treatment.

On the 7th of September, assisted by Dr. Wyman, I opened the abscess, by the common trocar, and discharged over a pint of healthy pus. Every precaution was taken to prevent the introduction of air into the cavity, and to heal the wound by the first intention. Compresses and a bandage were applied, the patient confined to bed, put upon a strict diet, and the bowels kept open. At the end of a week, the puncture having healed, he was permitted to go about his business, until the matter had again collected in sufficient quantity to be discharged safely.

The abscess was opened by the flat trocar nineteen times, at intervals of from six to two weeks; taking care at every time that the cavity should be less distended than before. In the mean time, bark, wine, nutritious food and gentle exercise were employed to invigorate the general health. After the abscess had been many times opened, it gradually became apparent that absorption or ulceration of the spinous processes of the lower lumbar vertebræ was going on.

In the course of time, three small red spots showed themselves upon the skin. Ulceration commenced, and the cavity became exposed. No symptoms of local irritation or inflammation followed, but a rapid wasting of flesh and strength. Hectic soon set in, the pulse quickened, copious night sweats followed, and the patient appeared to be rapidly sinking into the grave. Tonics, mineral acids, generous diet, and Carpenter's extract of sarsaparilla, put a stop to farther failure of the powers, and restored the system to its wonted vigor.

In July, 1833, while absent from town, a swelling appeared in the left groin, which opened, and for months continued to discharge a thin watery fluid. The ulcers in the back healed; and finally, that in the groin cicatrized. An issue had been put in the leg, the patient being unwilling to have it in the back, and at the end of three years from the time I first saw him, this was healed; and Mr. H., who was married during his illness, is now the father of a healthy child, apparently in full possession of his former health, and perfectly free, to all appearance, of any spinal curvature.

To the plan recommended by Abernethy, if it be 'rather

declining in general estimation,'* we are disposed to attribute the fortunate result of the above case, aided, we feel compelled to add, by the extract of sarsaparilla. Its effect in this case was truly wonderful. At the time it was commenced, I should not have been surprised at any visit to have found my patient dead. Beginning himself to be discouraged, for until now his courage had never failed, at the solicitations of his anxious friends, he requested the liberty of using Swaim's Panacea. Having objections to this uncertain compound, I put him upon the sarsaparilla. His health began immediately to improve, and continued so to do, under its use until no medicine was required.

Although it may not be uncommon for the bones of the spine to be extensively diseased, without any symptom sufficient to excite suspicion during the life of the patient, considering the history of this case, and the uninterruptedly free and easy motion of the spinal column, is there not room for a question, whether the bones were at all affected at its commencement?

Art. II. — Small-pox.

Two cases of this disease have lately appeared in the Suffolk House of Correction, and as the dates and other circumstances relating to its communication, were there attainable with more accuracy than is generally the case, we record them, as a small, but definite contribution to our knowledge on the subject of infection.

William Nelson, one of the patients, was in the hospital of the establishment on the *sixth* of March, instant, convalescent from some inconsiderable disease of the urinary organs, and was discharged on the following *ninth*.

He returned to the hospital on the *twelfth* complaining of pains in his limbs and back, which were thought to be rheumatic, occasioned by too sudden exposure after his confinement in the hospital. He was a little feverish; but had no distinct rigors, and had not lost his appetite. He was ordered some guiacum at bed-time, diet of the hospital, and confinement there. He was seen each day afterwards, and continued

* Med. Chir. Review, Vol. xxi, p. 519.

much the same until the sixteenth, when the physician found him in bed, complaining of feeling much worse, and exhibiting decided variolus eruption on his face and arms. It was known that he had been a prisoner nearly a year, and it was not known that he had been exposed to any source of infection. On inquiry, however, he stated that he had been shaved some days before by a man who had reported himself to the prisoners, as having measles.

That man was William F. Curtis, and the physician was not a little surprised and alarmed, to find him at work in the shop, in the midst of the other prisoners, fairly broken out with the eruption in confluent degree.

He said that he had felt ill for several days: but thought he would "fight it off," and at this time considered himself better; but had considerable sore throat, and symptomatic fever.

Curtis had been a prisoner more than a month, and his attack was equally mysterious with that of Nelson.

On close inquiry among the prisoners, the following facts were ascertained, which furnish the only account of the introduction of the disease which can be obtained, and which will probably appear to most persons to be a satisfactory one.

A man by the name of Francis Mullen, was committed on the sixth of March, who had occupied a house in Ann Street, contiguous to one in which a child had lately been sick with small-pox. The yards of the two houses communicated, and the two families used a pump in common, which stood in the yard of the infected house. Mullen had gone into the yard for water, during the child's sickness, and after it had been removed and the bed-clothes were hanging in the yard; but he is certain that he never touched anything there but the pump. The last time he was in the yard was two days before he was committed, when he had on the same clothes he wore to the prison. In the meantime he had been at work on the wharf, and moving about most of the time out of doors, wearing all the while, the same garments. He had himself passed through the small-pox, when young.

On his arrival at the prison he was taken to the receiving-room and stripped and washed according to the rules of the place, under the supervision of an officer. He was dressed in a clean suit of the prison uniform, and his own clothes laid aside. Curtis officiated as barber on this occasion, shaved the neophyte, and cut his hair — and as it was Friday, the regular

day for such operations in the Hospital, he was immediately sent to shave the prisoners who were there. Among the rest he shaved Nelson, who had neither had small-pox, nor been vaccinated, and such was the fact also with Curtis himself.

As soon as the disease was recognised, the patients were separated from their associates, and all the prisoners examined, as to their probable susceptibility to theinfection. A large proportion of them, being foreigners, had had small-pox, either by infection or inoculation, and most of the others had vaccine scars more or less satisfactory. Six or eight only had neither of these conditions of exemption, and among them was one in the hospital, who was shaved by Curtis at the same time with Nelson, and paid particular attention to him during the night of the fifteenth and morning of the sixteenth, when he was most ill. This man was intensely vaccinated, as were all in his unprotected condition, and all others were revaccinated whose mark was at all equivocal.

The two sufferers were removed the next day to Rainsford Island by the Board of Health, their apartments stripped and lime-washed, and their clothes thoroughly cleansed and fumigated. The clothes of Mullen had, by a singularly fortunate accident, been kept by themselves, and were now destroyed. The whole establishment was subjected to thorough ventilation, and such apartments as were particularly suspicious, according to time-hallowed custom in such cases, were fumigated with sulphur.

As yet (March 28th) no new case has occurred, and we have reason to hope that the infection is extinguished.

COLLECTANEA.

Causes of impaired confidence in Vaccination as a preventive of Small-Pox. — The first and most important is the loose and careless manner in which vaccination has been conducted, and the subsequent treatment attended to. In most cases the virus is inserted in the arm, and the incision examined about the third or fourth day. If marks of inflammation appear, the operator is satisfied, and the case receives no further attention. Very frequently the case is never seen after the virus is inserted, and

the report of parents, guardians, or masters entirely relied on. In very many instances, the process is conducted by ignorant and incompetent individuals, who are totally unacquainted with the influence which the disease ought to exert on the constitution. Generally, I believe almost universally, no preparatory course is adopted to bring the system into a proper condition for the reception of the disease; no inquiry made as to the existence of any constitutional irritation which might in any way interfere with the specific action of the poison, and no attention paid to diet or exposure. In this state of things, it is not at all surprising that very many entire failures occur, and that individuals thus situated, should still be subject to genuine small-pox. Can a preëxisting irritation, produced either by disease or by the injudicious or excessive use of stimulating, indigestible, and innutritous diet, so interrupt the specific action of the kine-poc, as that it shall only modify, without destroying the disposition to the small-pox? This idea had a powerful advocate in the justly celebrated Adams, and I find that many late writers are yielding to it. If subsequent investigations should prove this idea to be correct, it will not be difficult to account for the frequent occurrence of modified small-pox, or varioloid, which I consider to be the same. Two of the cases I have detailed, certainly strengthen this view.

"Another cause to which this error may be traced, is the frequent failure from the use of the vitiated virus. At the present day, the crust is generally employed in vaccination. Little care is taken to watch the progress of the vesicle. It is often ruptured, particularly in children, in the early stages of formation; inflammation then supervenes, and the virus is either totally lost or becomes incorporated with pus. It not unfrequently happens that the first crust is lost, and a scab subsequently forms, composed chiefly of pus, perhaps with a portion of coagulable lymph. There is little doubt but that this matter, introduced into the arm, would produce a pustular sore, and the inflammation might so deeply implicate the adjacent parts as to bring the system under sympathetic fever, still further calculated to deceive the uninformed. So long as vaccination is conducted by incompetent individuals not attached to the profession, and even by physicians who have not carefully studied the true character of the vaccine vesicle, and the influence which the disease exerts on the constitution, this state of things may be expected frequently to obtain, and will, I much fear, ultimately produce a wide-spread and fatal mischief.

"Our ignorance of the specific action of this class of contagious poisons on the parts of the system which they invade, and the subsequent condition of these parts which render them insusceptible to morbid impressions from the same poison, is a further

cause well calculated to beget doubt and uncertainty. Whether future investigations will remove any of the obscurity which now involve these points, it is idle even to conjecture.

"The facts connected with vaccination in the Prussian army, are of great moment, and clearly exhibit the careless and loose manner in which vaccination had been previously conducted. In the two regiments which were revaccinated at Urfurt, in 1831, more than a third received the genuine disease; and in the following year the proportion was nearly half. It is worthy of particular notice that those divisions of the army which were revaccinated entirely escaped the small-pox, which was then prevailing as an epidemic, while those which were not taken through this process suffered severely from it.

"It is to be hoped that the members of the profession on this side of the Atlantic, will engage actively in this extensive field of inquiry, and exert themselves to clear away the doubt and perplexity which have usurped the place of confidence."

American Jour. of the Med. Sciences.

Medico-Legal researches on the uncertainty of the signs of death &c, &c, by M. Julia de Fontenelle. — The subjects of M. Fontenelle's researches have long attracted the notice of the medical profession, and year after year works have appeared, well calculated to direct the attention of the public to the dangers attendant on premature interments, yet whatever may have been the momentary impression produced by them, the world is still content to pursue the course which fashion or convenience has dictated; and in most civilized countries the scarcely cold remains of relatives and friends are hurried to the grave, without an attempt being made to ascertain whether the vital spark is really extinguished, or is merely in a latent state.

It is not our intention to analyse this treatise in detail; we shall, at present, merely notice its plan, and the distribution of its contents in a cursory manner, at the same time recommending it to the attentive perusal of our readers, with the hope that some one among them may be induced to undertake a translation of it, and thus by rendering it accessible to all classes of the community, and awakening them to a sense of the horrors to which they are individually exposed, probably lead to the adoption of measures calculated to obviate the evil.

The work is divided into five parts; the first containing the author's views on life and death, which may be stated in a few words. He considers vitality as the *agent*, and not the *result* of organization, or to use his own words, "as that emanation from the divinity which gives effect to organization." In this part, and in an appendix, he offers some strong facts and arguments

in support of the opinion of Sœmmering and others, that death by decapitation is one of the most painful ever devised for the execution of criminals, and that instead of all sensation ceasing on the separation of the head from the body, that the former experiences the most horrible agonies until the almost total extinction of its vital heat.

The second part treats of the uncertainty of the signs of death, and demonstrates that no one of them is of sufficient validity for us to decide with certainty that death is really and truly extinct, and even a concurrence of the whole of them, with the exception of decomposition, may mislead. There can be no doubt, that many persons have been allowed to perish, who might have been restored to the enjoyment of a protracted existence; and hence it is our duty to prevent, if possible, such horrible results of ignorance or inattention, by ascertaining what criteria are to be depended upon in doubtful cases. This has been so clearly and satisfactorily accomplished in the work before us, that an attention to its precepts will, in most cases, prevent any danger from a premature interment.

In the third part we are presented with a great number of instances in which unfortunate individuals have been hurried to the tomb in a state of suspended animation, where they have revived only to experience the agonies of a second and far more agonizing death. That this takes place far oftener than is generally supposed, and more especially in times of public sickness, there can be no doubt, when we advert to the number of well authenticated cases detailed in the various records of our art. We are aware that the credulity of mankind and their love for the horrible and wonderful, have greatly exaggerated these cases; but when we consider how seldom it is possible to verify the fact of actual death at the time of interment, it must be evident that the relative proportion of those thus buried alive, has been so great as to require an observance of the utmost circumspection before we decide on committing a body to the grave.

The fourth part is devoted to the consideration of those diseases or states of the *living* body which produce a condition resembling death, and are too often mistaken for it. It would extend this notice to too great a length to attempt to speak of them in detail; we will merely state that this portion of M. Fontenelle's work is highly instructive, and contains numerous cases in illustration of his views, which deserve attention.

In the fifth part the author points out the modes in which the decease of individuals should be legally verified. In this country, as in most others, the laws on this head are very lax and inefficient, and require a scrupulous revision, but as even the most experienced may oftentimes be deceived, and the only plan which promises complete security is that adopted in many of the cities

of Germany at the suggestion of the celebrated Hufeland, a full account of which is appended to the present work. It consists in the establishment of houses for the reception of bodies, in different parts of a town, where they are kept till unequivocal symptoms of decomposition begin to manifest themselves; wires connected with bells are attached to the feet and hands, so that the slightest motion in the body would be revealed. A physician is attached to each establishment, whose duty it is to examine the bodies, and to sign orders for their interment. If evidences of life manifest themselves, every exertion is used to restore animation.

"The work terminates by a succinct but excellent detail of the means to be employed in cases of apparent death, whether from disease or accident, and a description of the apparatus for this purpose. — *American Jour. of the Med. Sciences.*

Radical cure of Hernia in Infants. — M. Meynier adopts the following treatment for the cure of umbilical hernia in new-born infants. — After returning the hernia he retains it with one or two fingers, and applies a square piece of spread diachylon plaster larger than the tumor. Over this is put a small thick compress, which is secured by a long strap of the same plaster. The middle of this strap is fixed on the compress and its heads passed twice or three times round the body to enclose the hernia completely. The first dressing may remain on six weeks. *M. Meynier* has sometimes found a single application of it complete a cure. It is occasionally necessary to renew the dressing twice, seldom three times. — *N. American Archives.*

Auscultation! — From a lecture on Aneurism, by Sir Charles Bell. — You are aware that this patient came from under the care of the physician; and I suppose you know that he was examined by percussion and the stethoscope; respecting both of which I am accused of being very sceptical. Here we have the fact before us, that the aneurism was not discovered. Now there is something in the mass of aneurismal clot occupying the chest, — something also in the manner of the circulation of the blood through an aneurism, the whiz of the current of blood through the narrow opening, — that we might have reasonably expected an indication of through the instrument. If it were very effectual in any case, one would naturally suppose that it would be so in this. But practitioners at home seem to contradict this; and the authorities abroad say that it is exceedingly difficult to discover aneurism of the arch of the aorta. This would imply that the stethoscope discovers slight effects of disease, but not material and important changes. — *Lond. Med. Gazette.*

Sulphuric Acid as a Prophylactic against Saturnine Colic. — Some time ago M. Gendrin proposed sulphuric acid lemonade as a prophylactic against, as well as remedy for saturnine colic, (see this Journal for May, 1832, p. 241.) M. G. has recently communicated to the Academy of Sciences, some additional interesting information on this subject. He states that M. Rouard, director of a manufactory of white lead, caused all his workmen to take the sulphuric acid lemonade, and from that moment lead colic ceased to occur among the men in the establishment. During two months, only four workmen were slightly affected with lead colic, and this exception is explained by circumstances peculiar to these workmen. But, he adds, at the same time that these results have confirmed the utility of the measure as regards colic, six of the workmen were attacked with symptoms hitherto regarded as the effects of lead colic, as cramps, muscular debility, and nervous epileptic symptoms. These symptoms M. G. ascribes to a layer of oxide and carbonate of lead, combined with the epidermis. This observation he considers as accounting for so many symptoms hitherto difficult of explanation, and points out the origin of the relapses and symptoms which so often supervene after the cure of colics in workmen habitually exposed to the powerful action of the causes of the disease. He further adds, that whether the sulphuric acid be resorted to as a prophylactic or remedy, it must be employed externally, as well as internally. Conformable to this indication, the workmen in the establishment of M. Rouard, at the same time that they take the sulphuric acid lemonade as drink, use lotions of the same to the surface of their bodies. — *Amer. Jour.*

M .Dupuytren died in Paris on the 8th of February, after a lingering illness of several months, aged 57. He has left the reputation of being the first operating surgeon in France, and probably in Europe. Domestic affliction preyed upon his mind for the last few years of his life. He has left Madame Beaumont, his only daughter, a fortune of nearly 7,000,000 francs, besides a legacy of 200,000 francs, to found a chair of medico-chirurgical pathology. He has also left 100,000 crowns, to found an asylum for twelve aged physicians.

We find the following spicy little paragraph, and cautionary prefix in the Boston Courier. We have but a single word to say of the subject matter of it, in passing it to our readers, — AMEN.

Symptoms of Discontent. — The following paragraph is from the medical Intelligencer of yesterday. It contains what Timothy Quaint would call "damnable hints — diabolical inuendoes"

— of which our medical faculty and professors in college would do well to take notice and govern themselves accordingly : —

Private Anatomical Lectures. — We understand that Dr. M'Dowell, who is called the *back-wood's man*, and who could not succeed, a few years since, in obtaining the place of *assistant* in the Ohio Medical College, is now lecturing on anatomy, in Philadelphia, to a class of one hundred and ten pupils. This is certainly both an evidence of his qualifications as a demonstrator, and tact in teaching a very difficult science. It is passing strange that some of the schools, whose operations are actually embarrassed by having chained to them uninteresting, unpopular and unqualified lecturers, do not secure the services of men whose powers are of that high order that they would raise the sinking reputation of any institution to which they might be attached. If medical reform is ever commenced in the United States, the first step will be an overturning in the professorships of some of the colleges. The time is coming when stereotyped discourses will not be tolerated in teaching a progressive science; and the professor who conscientiously discharges his duty, will labor to keep pace with the constant improvements and discoveries so important to the health and happiness of mankind.

EDITORIAL NOTICES.

Decision of the Supreme Court, in a Case involving the Statutes for the Discouragement of Quackery.

Simeon C. Hewitt vs. *Lewis Charièr.*

This was an action of assumpsit, as our brethren of the law style it, for services rendered by Hewitt, as a medical practitioner. It was argued a few weeks since, by Mr. Dexter for the plaintiff, and Mr. Child for the defendant, and the opinion of the court was delivered by the Chief Justice in favor of the latter, on the grounds taken in the defence.

The circumstances of the case, and the legal points raised in it, were briefly as follows.

Hewitt is a well known, and somewhat fashionable, empyrical surgeon, who has been practising upon the good citizens of this intellectual and highly refined metropolis, with considerable eclàt and success for the last six or eight years. He styles himself a " Professed Bone-setter," and undertakes the treat-

ment of dislocations, fractures, and various other diseases of the limbs, — some of which are among the most obscure as well as important, which flesh or bone is heir to — by virtue of knowledge and skill either wholly intuitive, or bequeathed to him by his much vaunted preceptor, Dr. Swett, a vulgar and drunken quack, who preceded him in the same line of business.

Charièr is a Frenchman, whose son has wry-neck ; and the father, lured by the specious pretensions of the quack, or, perhaps, influenced by the advice and example of his dupes and certifiers, committed the case to Hewitt, who undertook it, as usual, with assurances of effecting a cure.

After a while, Charièr, finding that he had been deceived in regard to Hewitt's qualifications for the proper treatment of his son's disease, dismissed him, and refused to pay his bill. Whereupon the quack, with the characteristic impudence of his tribe, in the face and eyes of the laws of the commonwealth, procures an attorney, — we regret to say, a most respectable and accomplished one, — to commence an action for the recovery of his charges, which in due course of time and proceedings, was submitted, as we have before said, to the bench of justices of the Supreme Court.

The defendant founded the justification of his refusal to pay, on the provisions of a statute-law of this commonwealth. — Mass. Stat. 1818. Chap. 113.

By the first section of that statute it is enacted, that no person shall be competent to maintain a suit for any debt accruing on services rendered as a medical or surgical practitioner, unless he shall have been licensed by the Massachusetts Medical Society, or graduated a Doctor in Medicine at Harvard University. On this point, it was argreed that the plaintiff professes and practices bonesetting and reducing sprains, swellings and contractions of the sinews, by friction and fomentations ; but no other department of the healing art, and also, that he had never been licensed or graduated as above directed.

For the plaintiff, it was contended, in the first place, that the services he undertakes to render, are neither medical nor surgical, but in a different and peculiar province, and therefore do not bring him within the disabilities of the law, — and secondly, that the law itself was unconstitutional, securing exclusive privileges to certain classes of citizens, and therefore afforded no protection to the defendant.

But the court overruled both these exceptions to the defendant's plea, — affirming the validity of the law, and its appli-

cability to this case, and teaching the plaintiff that he can neither creep under its provisions by pleading his insignificance, nor ride over it on his "reserved rights."

We believe that this is the first instance in which this statute has received the highest judicial sanction, and we regard the decision as an important one; not in its bearing on the privileges of the surgeon and physician, — for, as we have heretofore repeatedly contended, the regular practitioner needs no special legislative aids or advantages, if he be true to himself and his profession, and should desire none, — but to the public, it is of very considerable consequence, that the provisions of the statute should be resolutely sustained by the courts. Quackery must depend upon the infatuation of its votaries for remuneration, as well as for employment, and should not employ the authority and officers of the law, to extort pecuniary contributions from those who have already suffered severely both in health and self-respect, from mortifying and pernicious impositions.

A Portuguese Bulletin.

The young Queen of Portugal has lately been indisposed, when the following curious bulletin was issued, containing, says the London Gazette, one word for her majesty, and two for the doctor. "Her majesty's health continues to improve gradually, I have only to assert that my lips never utter anything but the truth — the clear plain truth.

Francisco Jose D'Almerda."

We have received a copy of Chitty's extensive work on Medical Jurisprudence; but, are unable to offer a suitable notice of it in the present number. It is for sale by our publisher.

MEDICAL MAGAZINE.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

SELECTED ARTICLES.

DR. STOKES ON THE TREATMENT OF THE DIGESTIVE SYMPTOMS OF TYPHUS.

WE now come to the treatment of the digestive symptoms of typhus. We often find the patient complaining of thirst, with a desire in some cases for cold, in others for warm, drinks. As far as I have seen, the preference for cold drinks is most evident in cases where signs of irritation of the stomach exist, as tenderness of the epigastrium, nausea and vomiting. One of the first observations I shall make on this subject is, that, in all cases where there is great thirst, you should be cautious in the administration of stimulants. The circumstance of intense thirst almost always points out the existence of irritation in the stomach or intestines, or both, and this should make you very cautious (particularly in the early period of fever) in giving any stimulant, whether in the way of medicine, food, or drink. If the thirst be great, and accompanied by vomiting, the best thing you can do is to apply leeches, and this you will find productive of very great relief, particularly where there is epigastric tenderness. You may allow the patient also to drink cold water *ad libitum*. Many persons are afraid

of doing this, but it never does any harm, and is a great source of refreshment to the patient. We frequently give ice in cases of this description in the Meath Hospital. Against this practice, also, an outcry has been raised by some unthinking persons; they say cold water, and more particularly ice, must be injurious, because we know that under circumstances of fatigue, &c., their use has brought on a gastritis. This is a false argument. The circumstances are totally different, and the remedy in fever with gastric irritation has a wonderful value. If after the use of leeches, ice, and cold drinks, you find the disposition to vomit continuing, you will have recourse to the administration of opiates, and those best adapted for this purpose are the acetate or muriate of morphia, or the black drop. In cases of obstinate vomiting, the application of a blister to the epigastrium, and the sprinkling the raw surface with a small quantity of the acetate of morphia will be found very useful. With respect to effervescing draughts, which are so commonly employed in cases of this description, I have already stated, when lecturing on gastritis, that their employment is very questionable, if not absolutely objectionable. They are very frequently rejected by the stomach, and the distension which is produced by the evolution of gas causes much distress and irritation.

Another symptom very often observed in connection with gastric derangement in fever is hiccup, a symptom of which, in the great majority of cases, we know very little. In the early period of fever, I have found it coexist with inflammation of the cardiac orifice of the stomach; in the advanced stage, as far as my experience of it goes, it seems to be more connected with general lesion of the nervous system. With these views, we may divide the treatment of hiccup into two parts; first, that which occurs in the early stage of fever, and, in the next place, that which comes on towards the close of a disease. In the former, we have found leeching, cold drinks, and abstinence, the best remedies; in the latter, anti spasmodic and stimulant remedies appear to be more applicable. By reasoning, then, from experience, we find that hiccup in the beginning of fever demands local antiphlogistics, but in the latter periods, when there is profound adynamia, it may be treated with opiates, antispasmodics, and even stimulants.

A very common symptom in fever is tympanitis. Here again I beg to refer you to my lecture on enteritis, as all I have said there on this point is equally applicable to the pre-

sent case. Tympanitis sometimes occurs at an early, sometimes at an advanced, period of the disease. It is a symptom which is very often badly treated. Many practitioners, the moment they recognise its existence, and without ever inquiring into its cause, prescribe at once their favorite nostrum, turpentine, and bad consequences are too often the result. What generally takes place is this, that after the exhibition of turpentine the tympanitis disappears, but its removal is purchased at too dear a price. All the symptoms of fever, thirst, heat of skin, excitement of the vascular and nervous systems, are increased, and, what is still more annoying, the tympanitis returns and is as bad as ever. The rule by which you should guide your practice in the treatment of tympanitis is this, if it occurs at an early period, when the skin is hot, the pulse quick, and the strength undiminished, it is a sign of irritation or inflammation of the mucous membrane, and is to be met by appropriate treatment. Never employ stimulants for the removal of tympanitis occurring at an early period of fever. But in the advanced stage, where the general inflammatory symptoms have subsided, where the skin is cool, the pulse weak, and the strength reduced, then you may exhibit turpentine with decided advantage; but as long as the condition of the patient requires and admits of local antiphlogistic treatment, never have recourse to it.

Diarrhœa is another very common symptom in fever. I have told you before that diarrhœa, when not critical, may be looked upon as an unequivocal indication of disease of the mucous glands of the intestines. With respect to the period of its occurrence, we may have it either in the early or in the advanced stage of fever. When it makes its appearance at an early period of the disease it should not be too hastily interfered with; for great danger has been found to result from stopping it at this time by the exhibition of astringent medicines. Bear this in mind. It is a common practice with some persons to prescribe astringents the moment diarrhœa appears. Now, this is founded on false notions of pathology. In cases of inflammatory disease, one of the principal modes which nature adopts in giving relief is, by super-secretion from the affected organ. Now, if, under such circumstances, you arrest a diarrhœa of this kind occurring at an early period, you do it at the risk of producing intense enteritis or effusion into the peritoneum. When it comes on at an early period, all you should do is to apply a few leeches to the belly, and give small

doses of hydrarg. c. cretâ with Dover's powder. You may also use mild anodyne injections; but in the treatment of this affection, always seek to arrest, not the disease but its cause. This is the true mode of proceeding.

In the advanced period of fever, where the pulse is small and low, and the strength sinking, diarrhœa is a very alarming symptom; for, if not speedily arrested, it will run the patient down in a very short time. Here, and here only, is the use of astringents demanded, and it is here that their beneficial effects are manifest. To arrest this dangerous symptom which is precipitating the case to a fatal termination, you must use opiates combined with astringents, and you may give wine if necessary.

From a consideration of the physiological characters of the digestive system, from the study of its pathological condition in fever, from a review of its form, structure, and functions, in health, and from the fact of its extraordinary liability to inflammation in fever, I think you will be prepared to admit, that the common practice of purging day after day, in typhus, must be productive of the worst consequences. I beg you will impress this firmly on your minds, for so universal has this practice been, that you will find it difficult not to be carried away by the tide of prejudice when you come to be engaged in the duties of your profession. A common practice has prevailed in these countries, and indeed still exists to a very great extent, of making the patient take purgative medicine every day, and this, I regret to say, is too often done even in cases where the surface of the small intestine presents extensive patches of ulceration. Now, gentlemen, I will ask you, can anything be so barbarous as this, or can it be exceeded in folly and mischief by the grossest acts of quackery? Here we have an organ in a state of high irritation, and exhibiting a remarkable excitement of its circulation; and yet we proceed to apply stimulants to that organ, and to increase the existing irritation. Would it not be absurd, in a case of inflammation of the knee or elbow joint, to direct the patient to use constant exercise and motion? Would it not be very strange practice to apply irritants to a raw and excoriated surface? Yet something equally absurd and equally mischievous is done by those who employ violent purgatives in a case of inflammation of the digestive tube in fever. This has been the great blot in the history of British practice. Calomel and black bottle, and even jalap and aloes and scammony, have been prescribed for

patients laboring under severe and extensive dothin-enteritis. Morbid stools are discharged, and the more morbid they are, the more calomel and purgative does the physician give to change their character, and bring them back to the standard of health. I want words to express the horrible consequences. Too often have I seen fever patients brought into the hospital with diarrhœa, hypercatharsis, and inflammation of the mucous membrane, from the use of purgatives administered before their admission. Practitioners will not open their eyes. They give purgatives day after day — a very easy practice, and one for which there are plenty of precedents — but it is fraught with the most dangerous consequences. I will freely admit, that the disciples of the school of Broussais have gone too far in decrying the use of laxatives altogether. But if they have lost hundreds by this error, British practitioners have killed thousands by an opposite plan of treatment. In cases of fever, where there is no decided symptom of gastro-enteric disease, there can be no objection to the use of laxatives if required, but they should always be of the mildest description. You will gain nothing by violent purging in fever. Mild laxatives alone can be employed; and where there is any sign of intestinal irritation present, even these should be used with caution. There is one mode of opening the bowels which you may always have recourse to with advantage in fever, viz., the use of enemata. There is not the slightest doubt that, occasionally, accumulations of fœcal matter will take place, and tend to keep up irritation, but they should always be removed with the least risk of producing bad consequences. To purge in fever, when intestinal irritation is present, is a practice opposed alike to theory and experience, and I have already stated that its results are most horrible.

It generally happens, that in cases of severe fever, even where symptoms of gastro-enteric disease are still present, that a period will arrive when the patient's strength must be supported by nutritious diet, wine, and other direct stimulants. Here the school of Broussais fell into a great practical error; their notion being that the fever was symptomatic of the gastro-enteritis, and not the gastro-enteritis of the fever, they followed a rigorous antiphlogistic plan of treatment *throughout the entire disease*, and thus many of their patients died, not of gastro-enteritis, but of the debility and exhaustion brought on by protracted starvation. You should bear this in mind, and recollect that, even in health, a man cannot exist beyond a

certain period without some kind of solid and nutritious aliment. In Dr. Paris's work on Medical Jurisprudence, you will find an account of a nobleman, who starved himself to death, which took place about the twentyfirst day. But how many fevers exceed this period? and can it be supposed that patients will survive or be able to wrestle successively with disease, unless their strength be supported by a certain quantity of nutritious aliment? It is decidedly a bad and erroneous practice to confine patients for weeks to the *diête absolue*, to give them, in fact, scarcely anything but gum-water throughout the course of a long and exhausting disease. After the second week, you must look to the strength of your patient, and if you find this sinking, endeavor to support it by a mild nutritious diet, and if this will not be sufficient, you must have recourse to wine and stimulants. You may give nutriment and wine with advantage, even where you are still employing local antiphlogistic means, supporting the system generally, while you are using measures to effect the removal of local disease.

It would be impossible to lay down any rules with respect to the use of wine. Sometimes it will be required at an early, more generally at an advanced, period of the disease. You may, however, adopt this rule as applicable to the greater number of fever cases, that as long as the patient's strength and condition are such as to demand the use of antiphlogistic measures, you need not give wine. But when antiphlogistics are either no longer necessary, or when the patient's strength will hardly admit of them, when the pulse falls, and the skin loses its morbid heat, then you may give wine, and in such cases it very often produces the most remarkably favorable effects. It matters not how quick the pulse may be at this period, for one of the first effects of wine is to diminish its frequency, if it agrees with the patient. Here we arrive at a very important fact, — that recovery almost invariably takes place where the pulse falls after the use of wine, and this diminution in the frequency of the pulse not only affords good grounds for making a favorable prognosis, but also shows that we may persevere in the employment of wine with decided advantage.

London Med. and Surg. Journ.

Art. II. — A Memoir of the Excision on the lower part of the Rectum when Carcinomatous.

Read to the Royal Academy of Medicine at Paris, by J. Lisfranc.

In my last memoir, I demonstrated that, in regard to cancerous diseases, the art of surgery might follow the indications of nature, and that *parts* of organs only might might be removed, the sacrifice of which was naturally indicated. I have attempted this with success, as you have seen, in cancers of the penis, tongue and vagina. Books prescribe that the whole of these organs should be removed: I have preserved them.

Surgery was at least of some assistance in these cases: for although a great sacrifice was required of the patients, yet life was preserved. This, however, was not true of those confirmed cancers which affect the lower part of the intestinal canal; here surgery was impotent; the patients inevitably died, a death of pain — of suffering. This distressing disease has been presented to me so frequently at our hospital, that I was led involuntarily to think carefully on the subject, and to attempt something for its relief, to which I was encouraged by my success in other operations mentioned at our last session.

Before, however, attempting an operation condemned by the Morgganis, the Desaults, and the celebrated surgeons of our age, I inquired whether their fears of operating on cancers of this character were real. I attempted to ascertain, by new investigations, whether some arrangement favorable to this operation had not escaped them; and I tried to determine in particular, the exact limits of the peritoneum, the proximity of which appeared to be one of the principal obstacles to the successful removal of the lower part of the alimentary canal.

I am convinced from numerous investigations, that the peritoneum terminates six inches from the anus in the female, and four in the male. Having partially injected many pelvises of both sexes, I have found that the numerous vessels of the end of the rectum may be divided without serious detriment; the arrangement of the cellular tissue around the intestine, and the curves at its lower extremity, have proved to me, that if an oval incision be made in the skin surrounding the anus, we may easily draw out the intestine, and instruments can then be applied with facility. As the rectum is united to the vagina in the female, and to the urethra in the male, by lamellar tissue,

these parts may be easily separated by the index finger. Finally, comparative anatomy demonstrates that there is a second sphincter above the first. These facts, hitherto unnoticed, dispelled my fears, and I decided to attempt the removal of cancers of the rectum. As the first precept in surgery, however, is to avoid injuring our patients, I operated in cancers of the rectum progressively. First, I removed those which were superficial, and where the mucous membrane only was affected; next, those where a part of the sphincters were implicated; then those where the whole of these muscles was concerned; and finally, proceeding step by step, I removed three inches and a half of the lower portion of the rectum.

I shall now proceed to detail minutely the results of these operations. Let us first examine when the operation is practicable.

1. We must be able to pass the index finger above the upper boundaries of the disease, which has hitherto resisted all remedies, and which will certainly destroy the patient.

2. We must ascertain as correctly as possible the thickness of the diseased portion of the rectum. When the cellular tissue surrounding the lower part of the intestinal canal is healthy, the intestine is movable and can be pulled down; in this case, we think that the operation should be performed. When, on the contrary, the cancer extends much farther, and also to some distance within the canal, experience must decide upon the propriety of an operation.

We will now state some details of surgical anatomy, as this is the pivot on which all surgical operations turn.

1. In the adult female, the antero-posterior diameter of the perineum is one inch; it may vary and be only two or three lines.

2. In both sexes, the distance between the anus and the lower part of the coccyx, is one inch and six lines; the space below the lower orifice of the rectum and the base of this bone, is two inches.

3. If in the female an oval incision be made three quarters of an inch arou nd theanus, and the dissection be carried to the intestine, which is slightly drawn down, two inches of the lateral and posterior faces of this organ can be removed without injuring the vagina, as may be seen in a cadaver; its prominence anterioily is only sixteen lines, on account of the intitimate adhesions at this point with the vagina. These adhe-

sions are formed by some muscular fibres, by an aponeurotic tissue, and by a very dense and compact cellular tissue; they extend about three lines in depth from the sub-cutaneous adipose tissues; farther, we have said that with the index finger we can separate the rectum from the vagina to the insertion of the peritoneum.

4. In the male and female, if the rectum be drawn down, the peritoneum hardly descends a line; this can be seen by opening the abdomen in a cadaver.

5. In the female, when we have dissected as far as the insertion of the peritoneum in the rectum, and have attached hooks to the lower part of this organ to draw it down; we find between the lower end of the rectum and the serous membrane of the abdomen, a space of six inches anteriorly and on the sides; posteriorly, the arrangement of the meso-rectum would permit us to dissect much higher.

6. In the male, the space between the anus and peritoneum measures four inches, and after cutting around the rectum, and dissecting to this intestine, we may remove an inch and a half of it all round, without wounding the urethra.

7. Beyond the prostate gland, the urethra is connected with the rectum only for a quarter of an inch; the urethra and bladder are united by a fine and elastic cellular tissue existing between them as well as the bladder; when the urethra comes into the perineum, it leaves the intestine as it goes forward; and from the point where it leaves the intestine to the skin, it forms, with the axis of the intestinal canal, an angle of about twenty degrees; the tissues in this angle are too well known to need description. I would only remark that it is impossible to separate them with the finger, without previously introducing the bistoury.

8. The only important vessels liable to be injured are — the inferior hemorrhoidal, the superficial branch of the internal pudic, the transverse artery of the perineum, the middle hemorrhoidal, and the terminating branches of the superior hemorrhoidal artery; they may be tied or compressed; the hemorrhage, however, in the operation about to be described, is in no wise alarming.

The patient is placed in the same position as for the bilateral operation for stone. The surgeon makes two semilunar incisions about an inch from the anus, which divide the parts as far as the superficial layers of cellular tissue, and unite in front

of, and behind the rectum; we then continue the dissection, directing the bistoury perpendicularly on the intestine, which is separated in every part; the index finger is semiflexed, introduced into the gut, and draws it down, and thus there is a prolapsus of the mucous membrane, the only or almost the only part diseased. It is now easy to cut off a large portion of the membrane with scissors curved flatwise, or with a bistoury; and even where the whole thickness of the parietes of the intestine is cancerous, provided that the disease does not extend more than an inch above the anus, the rectum may be turned inside out, and the diseased portion be seen; we then cut off the reversed portion of the intestine parallel to the axis of the trunk, and remove it with strong curved scissors.

Are all the coats of the intestine and some layers of the surrounding tissues diseased? In this case, after making the semilunar incisions, and dissecting the lower part of the intestine, the index finger is introduced into the intestine, and with a pair of strong scissors, we make an incision parallel to its axis, and extend it beyond the diseased part; this is made on the posterior part of the rectum, where the vessels are less numerous, and where there is less danger of wounding the peritoneum; by this incision, the intestine can be turned over, and the diseased portion be shown. If the hemorrhage is excessive, we apply to the wound, for two or three minutes, a sponge dipped in cold water, and we can then operate as if upon a cadaver; several hooks are placed in the lower part of the intestinal canal to keep it down. When the operation is performed on a female, it is useful for an assistant to introduce his finger into the vagina; in the male, a sound is introduced into the bladder, and entrusted to an intelligent surgeon, we then proceed to dissect the cancer upon the vagina and the urethra; this is extremely difficult, long, and laborious, and requires great patience and surgical skill. As far as practicable, I tie the vessels as they are wounded; but when the diseased portion is well dissected, and is attached to the body only by the healthy intestine, it seems much better to remove it by one or two incisions; as soon as this is done, the rectum retracts within the body, and the arteries of the part may give rise to a troublesome hemorrhage, which may require tamponnement, the dangers of which you know. Do you wish to control the hemorrhage? Cut circularly and gradually, and as soon as a ves-

sel is opened, tie it while the intestine is held down; when the incision is nearly terminated, compress the tissues in which the vessel terminates, with the thumb and forefinger; if an artery exists there, you will feel its pulsation, you will expose it, tie it, and you will then cut below it.

To prevent inflammation, I am never in haste to plug the wound; and if I have recourse to plugging, I remove the plug after a few hours to avoid irritation; this method has succeeded well with me.

Fearful of producing irritation, I apply a plain dressing for several days; I then introduce a very large pledget of lint, which I advise patients to wear for some time after they are cured; in severe cases, the treatment may continue two or three months. Affections of the nervous system, and inflammations, &c. are treated with narcotics and antiphlogistics; the discharge of pus is favored by changing the dressings three times a day. I shall not however detain the Academy by details on these points, but will refer them to the writings of my pupils.

I was particularly curious to know how defecation is performed after the operation; if only the mucous membrane, or a part of the inferior sphincters, or even the whole of these muscles are removed, the rectum performs its functions as usual. If much of the intestine has been removed, a kind of tumor forms at the expense of its muscular fibres, and perhaps also from those of the levator muscles, in the form of a sphincter, at the upper part of the cicatrix, the pellicle of which extends from the intestine to the skin, and seems to be an accidental mucous formation; in one of my patients there was a slight mucous discharge for some time after the removal of the disease. The artificial canal which extends from the integuments to the lower part of the divided intestine, presents the arrangement of a kind of Z, which is extremely fortunate, as nature thus provides for defecation. In fact, when the feces are not liquid, they are retained as in the normal state; when, however, they are very hard, they sometimes continue in the torpid canal formed by our operation, from which they can be easily extracted by the finger or by a glyster. When the feces are very liquid, and intestinal irritation exists, the patients are obliged to go to stool frequently; to retain the feces, they are sometimes forced to place, in the lower part of the passage formed by the cicatrix, a pledget of lint; which however is removed on going to stool. The inconveniences mention-

ed are too slight to be compared with a disease, which, unless cured, is attended with extreme suffering, and is fatal.* — *Mem. de l'Acad. Roy. de Med.* — *U. S. Med. and Surg. Journal.*

ORIGINAL ARTICLES.

Art. I. — Hydrocele of the Neck, cured by an Operation.

By E. Bartlett, M. D.

In Number 12 of the present volume of the Magazine will be found some account of a disease, first described under the above name, nearly twenty years ago, by Professor Maunoir of Geneva. The same account contains, also, a report of two cases treated by Dr. O. Beirne, author of the article. It would seem that this affection had hitherto been regarded as a variety of bronchocele, and subjected to the same general plan of treatment. The term bronchocele was formerly used to designate tumors of various characters, situated about the front and lateral regions of the neck. By more modern and accurate writers, it has been limited in its application to chronic enlargements of the thyroid body, so that the disease described by Professor Maunoir, although sometimes complicated with bronchocele, is clearly a distinct affection, and seems to be very properly called hydrocele of the neck. The following case, made up from notes taken at the time when the patient was under treatment, evidently belongs to this class.

Case. — January 7th, 1834. Miss P. B., about twenty-five years old, discovered nearly four years ago, a small tumor on the anterior part of the neck, just on a level with the thyroid body. From that time to the present, the tumor has been constantly increasing in size. It is now as large as an average head of a child three months old. It measures from side to

* Then follows a detail of the cases in which Lisfranc has operated; the result of which is, that of nine patients six have been saved, and three have died. Ed.

side ten inches, and extends from the chin to the end of the sternum. The trachea is pushed nearly an inch out of its course, toward the left side of the neck. The skin covering the tumor has its natural color, and its surface shows pretty distinctly, especially during the act of swallowing, two or three narrow, superficial impressions running obliquely from above downward, which seem to be made by the action of some of the muscles of the neck, lying over the tumor. The tumor has a very tense feel, like that of a sac with thick, firm walls strongly distended by a limpid fluid. It has occasionally been the seat of transient shooting pains. During some months past there has been considerable difficulty of swallowing. The voice is very much altered, being harsh and broken.

The patient has been under treatment most of the time since the appearance of the tumor. The local and specific treatment has consisted of iodine, externally and internally. For nearly a year, *eighty* drops of the tincture were taken daily, and for six weeks in the summer of 1833, *one hundred and twenty* drops were taken daily, without producing any appreciable effect either on the tumor or on the system generally. The patient has been subject, occasionally, to a cough, and there has been some shortness of breathing on taking active exercise, though the general health does not seem to have been much affected. She has lost one sister with phthisis.

I passed through the middle and front part of the tumor, from above downwards, a seton needle armed with a piece of common narrow tape. The two orifices made by the needle were about three inches apart from each other. More than a pint of a chocolate colored and perfectly inodorous fluid flowed from the openings made by the needle. After the evacuation of the sac, the two lobes of the thyroid body could be distinctly felt, both of them somewhat enlarged and hard.

Jan. 28th. There has been no discharge of fluid since the operation. The sac is filling again. The patient slept but little last night, although she did not suffer from pain. I attributed her wakefulness to excitement and agitation of mind occasioned by great anxiety about the result of the operation. During the three following days there was a good deal of febrile and nervous excitement. The pulse was quick, one hundred and twenty. There had been no discharge since the time of introducing the seton, and the tumor had regained its original size. It was hot and tender to the touch. On the 31st I removed the

tape, and there was discharged about half a pint of fluid resembling the first, but a little lighter colored.

Feb. 4th. The patient still continues restless and feverish. She has no appetite, a coated tongue, a quick pulse and sleepless nights. As the fluid was removed from the sac with some difficulty, I laid it freely open by an incision extending from one orifice to the other. After the discharge of a sanious fluid there followed five or six ounces of pus, slightly fetid.

Feb. 7th. The tumor has been discharging nearly half a pint of pus daily, since it was laid open. The general condition of the patient remains unaltered. From the thickening of its edges, and the contraction of the sac, the opening is again nearly closed. I enlarged it freely with a bistoury.

Feb. 15th. The purulent discharge has been slowly diminishing for a few days. From this time to the first of March, there was pretty severe constitutional disturbance. The patient was very much emaciated and feeble, with night sweats. The discharge was occasionally sanious and fetid. By the first of March it was reduced in quantity to about two ounces daily. The general health seemed to be improved by tonics, and the fetor of the pus was easily corrected by the occcasional injection into the cavity of a weak solution of nitrate of silver. From March 1st to March 15th, the patient improved daily. The tumor was not larger than a flattened hen's egg, the discharge was very small in quantity, and the general health was as good as before the operation. There remained a small fistulous opening, extending about an inch from the skin, till late in the summer. This finally closed, leaving nothing in the place of the enormous tumor but a small cicatrix, and a slight thickening of the integuments over the thyroid body.

Art. II. — On the Use of Emetics in the Puerperal and other States of the System.

Communicated for the Medical Magazine.

The stomach is the central organ of the body. This is literally true, and it is claimed by the popular language of anatomy. Not only is the stomach this central organ, but it is the great centre of sympathy in the body. There is between it

and all other parts a reciprocal action going on, the uninterrupted progress or continuance of which, is the condition as well as cause of health; and when disease exists, how truly are the relations of this organ preserved. It changes its whole state or mode of action on the invasion of disease. It does this in almost an infinite variety of ways, but always after a certain manner, and in exact correspondence with the whole wants of the system generally, and in as exact a one in conformity with remote disease. There is, hence, no organ whose states should be more thoroughly studied than those of the stomach. We should begin by learning all we can of its most natural, healthful functions, and then pass from these to every variety of disturbance it may manifest under every form of disease. If we look to the stomach to aid us in our pathological studies, so must, and do we, in the treatment of disease. In that of the acute form we attempt, by powerful impressions made directly on and through the stomach, to break up morbid associations, and restore at once the disturbed functions of organs to health. Such is our procedure in incipient or early fever, in some forms of pulmonary affections, inflammations of the mucous tissue of these organs, and in other maladies. And by remedies thus used we are frequently successful, and if not, we have made a preparation for subsequent treatment on which we may safely and usefully rest much of what may follow. — Chronic disease is especially amenable to remedies applied through the stomach, I use the more general term to prevent cavil. But would it not be granted me, that impressions made on the stomach itself, changes brought about in its own functions by remedies which are given it may be, for a more remote agency, are in many important chronic maladies the means of much of the good that is done.

Now let me ask, if we are in practice sufficiently attentive to the extensive powers held by the stomach over all other parts of the frame, and do we not in many diseases or states of the system, make the stomach the channel merely, the high way to the bye-ways in which we presuppose disease to lurk? And let me farther ask, if we do not in this way, not only fail to obtain our object, but even protract disease by our very remedies.

Let us take a very common case, obstinate and habitual costiveness existing along with a sub-febrile or inflammatory condition, and this for a long time. I have known such to last for weeks if not months. Our patient at last falls into habitual

ill health, gets to be nervous, in the language of friends, or *poorly*, a word which expresses the state better than a volume of definition. If we look into such a case very carefully, we shall learn that the functions of all organs are but imperfectly but half performed. The secretions, for this is the true word, the secretions are all in fault, and are all more or less perverted in kind, or deficient in quantity. Here is a most common case, and in females make up most of the detail of business.

Here is a case in which the stomach suffers most, and makes all other parts suffer. The sympathy is perfectly reciprocal. And how do we treat it ? Is it common to address our remedies to the stomach in this case, and do we, by a proper combination of mineral and vegetable emetic substances, make that impression on the stomach and all its connected organs, and then to every fibre of the body which, while it is thus extensively felt, makes a change in every thing ? Is it not the more common course, to trust such cases to the temporising method of a tri-weekly cathartic of a feeble kind, and is not the intervening time filled by tonics or stimulants to produce appetite, and nourishing food to afford strength.

A less common but more important demand is made for emetics by that class of cases which have begun with acute, and it may be, even dangerous disease, but which have gradually fallen into a morbid condition of less violence, and less danger. I have seen such cases. One was in a female over twenty. The first disease was malignant dysentery, which prevailed as a most destructive epidemic in a neighboring town some years ago. A sequel of this, as it is of other forms of the disease, was rheumatism, or an affection, which from its resemblance to that, got its name. I did not see this patient in the dysentery, and not till the rheumatic difficulty had lasted many weeks. I found her greatly emaciated, with simulative symptoms of fever. The greatest pain was on attempted motion of the head. The neck was permanently fixed and rigid. She had been long taking wine, bark, meal, &c., with no increase of strength. She could only rest when under the power of opium. I examined this case with much interest. I learnt that the secretions were in every sense perverted. Here was an instance of real suffering, with apparently and truly great exhaustion. I recommended an emetic of sulphate of zinc and ipecac. Much fear was expressed of the result. Her physician agreed to try it. This was towards night, on many accounts the best time to

give an emetic, if we can choose our time. The emetic was given. Its effects were most salutary, changes of great importance followed it, and the patient rapidly recovered.

This is but one of many cases in which emetics will undo much evil that preceding remedies have produced, and lead the way to rapid recovery. I might mention other diseases of a still more formidable character, in which emetics have acted in a like beneficial manner. Some chronic affections of the chest, more or less resembling phthisis, have been relieved by similar means, and at length recovery has taken place.

These facts are important. We should have them in mind in the treatment of very different morbid states of the system. The puerperal is one of such states. As it is ordinarily presented to us, we might incorrectly designate it, were we to call it morbid. But it is, confessedly, so nearly related to it, that it may be safer so to consider it. What is this state? It is a condition produced by, or connected with, a wound, and a wound of some extent. A lesion has been produced in an important organ, which has for nine months performed an important function, which function has been suddenly terminated by delivery. The lesion is the injury done the wound by the separation, a violent one when most easy, of the placenta. I make these remarks that my notion of the state of the system peculiar to the puerperal state may be clearly understood. In the most favorable aspect of the puerperal condition, we shall not err greatly, if we call it a morbid one. I refer to the case immediately after delivery. If now we look to what has existed, and it may be some time before labor, and include in it the period of labor itself, we are presented with much that influences the puerperal state. During the first period, there has been more or less derangement of functions. No organs have probably suffered more than those which form the alimentary canal. The stomach very early informed us of the state of the woman by the disturbance of its functions; and the bowels, especially the large ones, have been habitually slow, much of this has existed during labor. Now all this enters into our account of the condition of the woman in the puerperal state.

The diseases of this period are inflammatory and febrile. They may all be included under the first general head. This character they in part get from the lesion of the womb, already referred to. A common disease of this period, is inflammation of one of the mammæ. This is local inflammation, exci-

ted it may be by local causes, but mainly dependent in inflammatory predisposition. And how do we best treat this disease, I mean in its earliest movements? I answer by emetics. Let us give our patient an *accumulative* emetic, to borrow a term from another science. Let the stomach be persuaded to allow of its presence, and of its incipient actions, until the whole body is affected by it, the skin, from the head to the toes, and the internal skin, the mucous membrane from the lips to the rectum, and then let it act with real power, and we may have done more to prevent, to break up a most painful malady, than all our leeches and washes will do when it is really formed.

Peritoneal fevers, puerperal so called, are another class of diseases of this state. Let our methods of treatment be what they may, we shall increase all their benefits by beginning with an active emetic. Emetics have been curative in some of the forms of this disease. They were so in an epidemic in Paris some years ago, and though they are not solely relied on now, the very latest experience on the subject comes to us with additional testimony in its favor. Emetics are not only useful at the onset, but continue to be very valuable means in the progress of the disease. This is specially true, that articles having emetic properties, given in frequent and small doses, ipecacuanha, for instance, are highly useful, and should not be forgotten in the treatment of this fever.

There is a form of this disease which is comparatively of such mildness as hardly to deserve the name. It is more frequently observed when the genuine fever is ripe, and is among other evidences of the power and extent of the epidemic constitution. If a physician be asked at such times, of his childbed women, and if he has seen these cases, he will say, 'puerperal women do not do well this month or this season.' He may not see much of the genuine fever, but this form he frequently meets with. These cases are marked by very slight symptoms of access if any. The pulse gradually gets quick and frequent; the skin warm and dry, — the face is pallid or quite pale, except the lips, which may be even redder than common. The sleep is bad, — there is restlessness, — loss of appetite, sometimes nausea, — slow bowels, — great weakness. Headache is not an unfrequent symptom. I have known it severe for an hour or more, the patient then is free from it. It may suddenly reappear. The abdomen is not particularly noticed by the patient, though if pressed uneasiness or soreness may be felt. This is a *diffused* tenderness, not the particular

local soreness of the genuine disease, — nor is there ever the same fulness or tension of the abdomen. The milk is entirely wanting, or very deficient.

Here is an assemblage of symptoms which, without presenting any thing very specific either in character or danger, will continue under the ordinary treatment of an occasional cathartic, febrifuge and opiate for some time. It has lasted a fortnight, and even a month. Now if an emetic be given, and it operate freely and fully, we shall hardly fail to observe manifest improvement. The pulse will at once discover it. Then the bowels will be freely opened, the appetite and strength return, and convalescence rapidly make progress. Now much of all this trouble and suffering might have been avoided by a prompt exhibition of an emetic, and this might have been recurred to in the after treatment of the patient.

I cannot close this paper, without adding to one or two morbid affections, or states of disease, in which emetics are singularly useful. I shall speak first of *continued fever*. This fever we know is marked not more by its length, than by the pertinacity with which its great and leading symptoms will hold on their course. We know farther, that the mucous texture is always more or less deeply implicated in this fever, and continues to be affected with it, at least as far as we can see this texture, during the whole of its continuance. The tongue, mouth, throat, all are in a morbid state, and will continue to be so to the latest period of the disease. I speak of this condition of these organs, because we can discover it by our senses, feeling and sight. Along with all this, is closely associated all that goes to make up this extraordinary disease, or mode of being termed fever. Emetics in this advanced stage, are frequently useful remedies. A change is brought about in the secretions, and amendment may soon be apparent,

Typhus fever in its advanced stages will, like the above, often be much benefited by the same method. It is in this stage that a physician in England, in a treatise on fever, not otherwise very interesting, recommends emetics with great emphasis. The practice has been adopted with much advantage.

One other affection remains, on which a remark or two may be made. I refer to a state of the catarrhal membrane, which frequently in old people supervenes in pneumonia more or less severe. It is attended with much mucous râle, with imperfect cough, rapid pulse and respiration, and partially denuded tongue. This state may last a good while, and under it,

if the powers are greatly prostrated, when it has fully developed itself, the patient may sink. If less exhausted, chronic catarrh follows, with feeble health. In the height of this trouble, emetics will do more good than all other means. They have been tried, and the good effects have been as now stated.

In this paper there has been no attempt at novelty. I hope the repetition of what I believe sound views in the treatment of some diseases, will not be considered either useless or misplaced.

Art. III. — Dissection of a Uterus at the Sixth Month of Impregnation.

Communicated for the Medical Magazine,

By J. B. S. Jackson, M. D.

Although in many respects this dissection was unsatisfactory, yet as it was conclusive in regard to some points which have lately attracted the attention of distinguished anatomists in England and France, I venture to offer it for publication.

The uterus externally was somewhat between the oval and pyriform shape, measuring nine and a half inches in its long axis and six inches transversely at the broadest part. The posterior parietes were much more developed than the anterior, as shown by the situation of the Fallopian tubes when viewed laterally. The organ was generally of a light red color, soft to the feel, and fluctuating from the liquor amnii it contained; the different parts of the fœtus could be easily made out.

The os tincæ measured one and a half inches in width, inclusive; the two lips were of an equal length, extremely soft, of a red color, and having a rough, abraded appearance on the opposing surfaces; entrance closed by a very viscid mucus, appearing a little milky at first, but after laying in water a day or two, becoming perfectly transparent.

The Fallopian tubes made a sharp angle with the body of the organ; the fimbriated extremity of the right was free, and the ovary, which lay at some distance from it, presented no unusual appearance. The other tube adhered firmly at one

point by its fimbriated extremity to the corresponding ovary, from which, as appeared on dissection, the vivified ovum had been derived. This was shown on the external surface by a very decided projection, soft to the feel, and of a red color; on one side of it was a slight depression, such as belongs to the organ in its natural state, but nothing like the well marked cicatrix, which we are told is found in such a situation. On making an incision through this part, a well defined body presented itself, of an irregularly oval form, seven lines in length by three in breadth; it had a uniformly firm consistence and structure, and was of a red color, though apparently it was not vascular, as no vessel was seen in its substance, and after a maceration of twentyfour hours it appeared of a dull yellow color; from which circumstance there could be no doubt that it was a true corpus luteum.

On dissection, the uterus was found to be, on an average, three lines in thickness, becoming, however, greater where the placenta was attached, whilst towards the cervix it was less than two. To the feel it was as soft as the most flaccid muscle. The muscular fibres were sufficiently distinct, though less so than at the full term; no attempt, however, was made to trace them.

Large veins entered on each side of the organ by two distinct sources, one just above the cervix, and the other near the Fallopian tubes. These were seen in several instances to communicate freely by large oval shaped openings, as they passed one under the other. They were every where numerous, but particularly at the insertion of the placenta, where they seemed mainly to constitute the parietes of the organ, making it very extensible, and giving the appearance almost of a coarse, erectile tissue; though in a collapsed state, it was evident, that when distended with blood, the parietes would have been vastly thicker than now. A careful examination was made where the ovum was laid open, with reference to Mr. Robert Lee's opinions on this part of the subject, and in several instances it appeared sufficiently evident that on that part of the inner surface of the uterus which corresponded to the placenta, the uterine veins, and those too of a large size, did terminate in open, well-defined extremities, as he supposed; from the oblique direction in which they ran, these extremities generally presented either an oval or a semicircular appearance. They were, moreover, accurately closed by the decidua which lay over them; and the separation being as

easily effected at these points as elsewhere, I think we may safely infer, so far as this examination goes, that no free communication exists between the uterine vessels and those of the ovum. The same point may be illustrated on any placenta after a natural labor, in which, however carefully we may examine the uterine surface, we shall not find the ruptured opening of a vessel of any considerable size, the circular sinus of which we used to hear so much formerly, being now well understood, and very differently explained.

It is very much to be regretted that any attempt was made to inject the vessels in this case, as in consequence of extravasation into the substance of the placenta, the whole was greatly confused.

As to the uterine veins not corresponding to the placental surface, there was much uncertainty. On dissecting from without inwards, they seemed in a few cases to terminate like those already described, in open, well-defined extremities, only that they were much smaller, being about the size of a crow-quill. The appearance, however, was probably deceptive, as the inner surface of the uterus, from its softness and close connection with the decidua, was constantly liable to be raised up, and confounded with that membrane. Indeed, it is so difficult, if not impossible to avoid it, by this mode of dissection, that, judging from their descriptions, I believe it often has been done by distinguished anatomists, and has led them into false views of the structure of the part. But by dissection from within outwards, the chorion and amnion being removed, the decidua was raised extensively, and was even scraped from the inner surface of the uterus, and it could be done with great ease, and yet this last presented no appearance of the open extremities of vessels.

The decidua, which was next examined, has been the subject of great dispute as to the question of its organization, its mode of connection with the uterus, whether it envelopes the whole ovum, or stops at the edge of the placenta, and various other points. In this case it appeared as a light colored, semi-transparent, very soft, imperfectly organized membrane, on an average not more than half a line in thickness, and divisible into several layers very loosely connected, three or four at least being raised over an extensive surface, in one or two places. Its connection with the uterus could be very easily separated by means of a small blunt instrument. There were, however, numerous attachments by means of delicate filaments;

several of these appeared to be hollow, and may have been vessels, for notwithstanding what M. Velpeau may say of the unorganized character of this membrane, and its want of vascularity, it was evident in this case, that there were vessels of very appreciable size, filled with red blood, and seen as distinctly as if they had been injected. The distinguished author just quoted, speaks of this appearance as having been described, but thinks it is deceptive, — that it is nothing more than what we see on the adherent surface of the false membrane in croup, and he might have added the recent lymph on an inflamed serous membrane. Its connection with the chorion was close, though easily separated. Around the edge of the placenta, which lay in the upper posterior part of the body of the uterus, towards the left side, the decidua formed a distinct, thick ridge ; here, and for some distance around, it had some appearance of an opaque, dull, yellow color, and more of an unorganized appearance than was found in any other part. With the fœtal surface of the placenta, it had nothing to do, stopping abruptly at the edge ; but over the uterine face it did extend, or else a membrane very much like it had been formed there, independently, which afterwards became attached to the decidua, and between which the limits cannot now be traced. That this membrane is a continuation, and properly a part of the decidua, is the opinion of Mr. Lee ; that it is formed secondarily, there being no trace of it until after the twelfth week, is maintained by Velpeau. A point much disputed is, whether the decidua is continued over the Fallopian tubes and cervix uteri, so as to form a shut cavity. It is extremely difficult to decide, as to the first, on account of the minuteness of their openings ; I can only say, that on examining that part of the membrane which corresponds to one of them, I could find nothing to the contrary ; — as to the cavity of the cervix, it was clear beyond all question, that it was not closed by the decidua, as Velpeau would have it that it always is, but, as the Hunters taught, by a great abundance of perfectly transparent mucus, being extremely viscid in the centre, but towards the uterine cavity into which it projected, becoming thinner, and resembling the vitreous humor of the eye. The decidua itself stopped at about the commencement of the cervix, or rather became incorporated there with the inner surface, there being no distinct line of demarcation. And here it may be said of the cervix, that its length was thirteen lines, the thickness of its parietes from three to five ; that it was much softer than in the unimpregnated state,

and that the arbor vitæ could be distinctly seen on the posterior wall through the transparent mucus.

The chorion was exceedingly thin, firm, and quite transparent, adhering externally to the decidua. Between it and the amnion was every where found the substance described by Velpeau, as the allantoid membrane, and so aptly compared by him to the vitreous humor of the eye.

The delicacy of the amnion equalled that of the chorion; the quantity of fluid it contained was about ten ounces.* On its external surface, and adhering to it, one and a half inches from the root of the cord was the umbilical vesicle, a dull, yellowish, opaque, flattened body, one and three quarter lines in length, and one line in breadth. Its duct was about the size of a cambric thread, and could easily be traced the whole length of the cord.

The cord was eleven and a half inches long, and as large as at the full term. The child was a female; the breech presented towards the os tincæ and the back rested against the right side of the organ, the cord partially surrounding the neck; its length was eleven and a half inches; from the vertex to the umbilicus, six and a half, and from the umbilicus to the soles of the feet, five; from the acromion process to the tips of the fingers, four and three quarters; and from the great trochanter to the soles of the feet, four and a quarter; fine down on the head; eyelashes formed, but lids adhere at the edges; nails not formed.

* This fluid Dr. Charles T. Jackson has had the kindness to analyze for me, and the following is the result of his observations.

"Sp. gr. of the liquor — 1,01035 — water being 1.

"To ascertain if the liquor contained *albumen*, separate portions of it were treated as follows.

"1st. By boiling it in a glass capsule, a thick coagulum of albumen separated.

"2nd. A portion of the fluid being treated with strong alcohol, flocculi of albumen separated.

"A portion of it treated with strong nitric acid, gave an abundant coagulum of albumen.

"To ascertain if the liquor contained *gelatine*, it was treated with a decoction of nut galls, when a thick precipitate took place, indicating *gelatine*.

"The liquor now manifesting chemical decomposition, was thrown away without farther examination."

These experiments directly contradict the statement of M. Velpeau, who says that the fluid in question coagulates with great difficulty by means of acids, alcohol and boiling; a difference of result, however, may be expected at the different periods of gestation.

COLLECTANEA.

Smith on the Inverted Toe-nail.—Although at first thought, this disease may appear to be one of trivial character, and although it is one which never threatens life, yet I know of but few which create a greater amount of suffering — so frequently does it occur, and so severe is the distress which it often occasions. I have, indeed, in some instances, known it to be attended with such extreme irritation as to impair seriously the general health; and I have known amputation to be improperly resorted to for its relief.

Those writers who have noticed this disease have uniformly described it as an actual inversion and growing downward of the margin of the toe-nail. Having noticed carefully, in my own person, the causes which produce the disease, and the mode of its production, I am satisfied that the commonly received explanation is erroneous.

These diseases would never occur to those who wore neither boots, shoes, nor stockings. Indeed it never occurs to the negroes of this section of the country, who generally wear no shoe, except during the winter season. The shoe or boot, then, (but sometimes the stocking) is the remote mechanical cause of it, The mode in which it operates is this: — the shoe, being, as it usually is, too narrow to allow the anterior part of the foot to expand when it receives the weight of the body; or the heel of the shoe being so high as to cause the foot to be thrust forward into the narrow part of it, the toes are cramped and compressed upon each other. The great toe particularly, receiving the greatest pressure, is forced outward and against the second toes and is made partly to mount upon it. The second toe, being smaller, presses not directly against the side of the large one, but partly under it, pushing the soft parts upward, and doubling them over the outer edge of the nail. A species of inflammatory hypertrophy takes place in the extremity of the toe from the continued irritation of the nail; and the soft parts, which are thus reflected over its border become more voluminous than natural. I have often thus seen it doubled quite over to the middle of the top of the nail. The end of the toe itself also becomes permanently swelled and expanded, and rises anterior to the angle of the nail. The pressure of the shoe on the top of the nail, no doubt assists in some degree the production of the disease.

Very rarely does the disease occur at the inner margin of the nail, as it certainly would as frequently do, if the common

explanation of the production of the disease were correct. When it does there occur, I am confident that it arises from the soft parts being pressed upwards from below, and the nail being resisted above.

When the flesh is pressed upon the edge of the nail, ulceration will necessarily result, and pus is secreted. Occasionally blood flows. Redundant spongy and irritable granulations occur and increase the tumor of the parts, which rise above the margin of the nail and give to it the appearance of having grown into the flesh, and of being deeply buried in it.

The elastic pressure of the stocking more frequently inflicts injury upon the toes than is generally supposed. The material is so soft and yielding, that few suspect the evils of tight stockings as well as of tight shoes. The continued pressure of a substance as soft even as the texture of a stocking, is capable of greatly modifying the form of parts. I was not long since consulted in a case of dislocation of the lower jaw, in which the character of the injury not being recognized, no reduction had been effected. The displacement had existed nearly a year. Surgeons are aware how difficult it is for the patient, after dislocation of the jaw, to close the mouth, and retain the saliva, even when inflammation has passed away. Strong contraction of the lower part of the orbicularis is produced for this purpose, and almost continued pressure is made upon the lower incisor teeth. In this case, by the pressure thus made, the teeth, which before had been natural and strong, were thrown horizontally backward into the mouth.

Upon one occasion, when suffering in my own person from the irritation of the inverted toe-nail, I changed my shoes for those which were abundantly wide at the toe, but still I felt the same painful compression of the toes, when standing or walking. Further attention to the cause showed that it was the continued pressure of the elastic stocking.

For want of proper attention to the cause, as I believe, the surgeon is often long baffled in the treatment of this disease. So often are the ordinary means defeated, that Dupuytren has recommended and practised an operation of great severity for its radical cure. He thrusts the blade of a pair of scissors beneath the anterior margin of the nail, near its centre, and carrying it parallel to the lateral border, reaches the root. He then divides the nail, and seizing the portion concerned in the disease with forceps, tears it away. This is said by the surgeon not to be particularly painful, but I think it will require more than the assurance of the operator to convince us that it is not agonizing. Such an operation will undoubtedly be effectual, but besides its cruelty, it impairs the integrity of the member. The toe-nail is

by no means a superfluous appendage, and therefore it is desirable to preserve it.

In the treatment of this affection, let the surgeon first carefully consider the cause, and endeavor to effect its removal. This I have accomplished by interposing between the toes, at their roots, a cylinder of soft, rolled linen — perhaps a third of an inch in diameter, or as large as may be necessary to keep the extremities of the toes from pressing upon each other. A shoe is to be worn which shall give abundant room for the toes to expand, but furnish snug support to the instep; for a shoe which is altogether loose upon the foot, will allow the toes to be pushed forward upon the toe of the shoe. The patient must also wear stockings which shall not in the slightest degree compress the toes. If the disease be not far advanced, the parts being relieved of the cause, will soon spontaneously assume their healthy condition. But if there be morbid granulations rising, in which the border of the nail is buried, and this last appears to be creating great irritation, it is necessary to gently raise the border of the nail by seizing the corresponding anterior angle with forceps, and then, with delicate scissors, the free lateral margin which will be found macerated, white, soft, and brittle, should be cut away. To the granulations the nitrate of silver may be applied. The toe-nail should now be scraped thin upon its dorsum, and the patient should be directed every day to lift the border of the nail. I have found no advantage in thrusting anything under the nail to keep it raised, but have seen such substance cause much irritation.

In confirmation of the correctness of our pathology and treatment of this distressing affection, I may add that, when patients suffering under it, are by other disease confined to their beds, without wearing stockings, the disease invariably disappears and does not recur until they have been for some time on their feet. — *Smith's Report, in N. American Archives.*

Extracts from a paper on the Principles of Vital Attraction and Repulsion, by Dr. Alison — The object of this paper was to state and estimate the scientific value of a variety of facts which have been recorded by various physiologists, and many of which have been verified by personal observations, in proof of the proposition, that the fluids of living bodies, or in immediate contact with them, are, in many instances, liable to movements dependent on the vitality of those bodies, but independent of any vital contractions of their solids, and which can hardly be conceived to be effected otherwise than by certain *attractions* and *repulsions* peculiar to the living state.

Five classes of observations, perfectly distinct from one another, were stated in proof of this general proposition.

I. — The first are those made on the regular progressive movements of juices (made visible by whitish globules in many kinds of vegetables) to which the name of *rotation* has been given in the case of the cellular plants, such as the Chara and Caulinia, and that of *cyclose* in the case of cellular plants with emitting juices, such as the different species of ferns, movements which go on nearly uniformly, under considerable variations of temperature, and other external circumstances, while life continues, and which are not only unattended with any visible contractions of the parietes of the cells or vessels containing the fluid, but are of such a nature as no contractions of these parietes appear capable of producing, as appears particularly from the elaborate inquiries of Schultze, Amici, Nisbet, and Cassini. This conclusion is the more important, as it is probably applicable to nearly all the movements peculiar to life in the fluids of vegetables, although the observations on which it rests can be satisfactorily made on those only which contain opaque globules.

II. — The second set of facts are those connected with the *visible currents* which take place in water, in contact with many living bodies, as ascertained, first by the observations of Dutrochet, and of Dr. Grant on living sponges ; secondly, by those of Dr. Sharpy, M. Quillot, and M. Raspail, on many aquatic animals, chiefly mollusca and the larvæ of reptiles ; and, lastly, by those of M. Raspail and many others, on certain animalcules, chiefly of the genus *vorticella.* In all these instances, facts seem to be established which are altogether inconsistent with the supposition of the movements depending merely on contractions or vibrations of any living solid textures.

III. — The third class of facts adduced on this subject consists of those which show that, in the fœtal state of animals, different parts are successively developed from the semi-fluid matter of the ovum ; and the particles of that matter must therefore have been much and variously moved before the heart acts, or any contractile vessels have been formed ; and farther, that the human ovum itself, during the time when it is surrounded on all sides by the shaggy chorion, must draw its nourishment from the semi-fluid matter contained in the uterus, through the filaments of the chorion, without the aid of any contracting vessels in these filaments. These points appear established by the observations of Prevost and Dumas, Breschet, Velpeau, Raspail, and others.

IV. — The author considers the existence of attractions and repulsions peculiar to the living state, among certain of the particles of the blood of animals, to be established by due consideration of the following facts : —

1st. By the phenomena of the coagulation of healthy blood, and the absence of any contemporaneous, mechanical or chemical change adequate to explain the change of aggregation of the particles of the fibrin on which that process depends.

2ndly. By the great retardation of that process, when blood (although its circulation is arrested) is confined within a healthy living texture.

3rdly. By the great acceleration of that process, when the living texture, in which the blood flows is severely injured.

4thly By the total suspension of that process, when death is produced by a sudden and violent cause, especially by a cause, which at the same time destroys the power of contraction after death in muscular fibres.

5thly. by the different modifications of that process, which are observed in inflammation.

6thly. By the phenomena which are observed in those portions of blood which are extravasated in inflamed parts.

In proof of these points, the author refers partly to personal observation, and partly to the works of Hunter, Hewson, Thackrah, Scudamore, Bates, Schrœder, Van der Kolk, Velpeau, Gendrin, Rayer, Collare, and Kaltenbrunner.

V. — The last set of observations, adduced in support of the general principle, are those which, in reference to more complex questions in physiology, are the most important, viz. those which indicate that the blood circulating in the capillary vessels of living animals, and examined by the microscope, exhibits a variety of movements and changes of movement, which no visible or conceivable vital contractions of the heart and arteries are adequate to explain.

Most of these facts as to the capillary circulation were accurately observed, and the conclusion, which appears inevitable from them, as to the existence in the living state of a peculiar cause of movement, inherent in the blood itself, or, at least, independent of any impulse from contracting solids, was stated and carefully limited by Haller. In regard to the rest, the author refers not only to personal observations, but chiefly to the authority of Dollinger, Medemeyer, and Kaltenbrunner in Germany, and of Quillot and Leuret in France. — *Lond. Med. and Surg. Journal.*

Contributions of Dupuytren to Medical Science. — The labors and researches of M. Dupuytren were principally employed about anatomy, (natural and morbid), and surgery. But as our space is limited, we shall confine ourselves to a rapid view of his surgical achievements. He seems to have enriched the art of surgery in every department. In the treatment of phleg-

monous erysipelas, he is said to have been the first who applied blisters; and it was he who explained the nature of inflammations with strangulated bases, as in furunculus and anthrax, — where he devised the plan of large and deep incisions, in order to arrest their progress. Burns he divided into six species or degrees, and assigned an appropriate treatment for each. He it was who first tried caustic in sores affected with hospital gangrene; who employed epispastics for the radical cure of hydrocele; who modified successfully Foubert's method of treating fistula lachrymalis; who struck out a new process for the cure of ranula *(grenouillette);* and it was he who originated certain important precepts for the forcible and successful removal of sarcomatous polypi of the nose and maxillary sinus. From him we learned the advantages of excision in preference to ligature, in treating uterine polypi; and he it was who first performed the operation of complete amputation of the neck of the uterus, when affected with scirrhus or cancer. He it was who first recommended the semicircular incision in removing carcinomatous upper lip, leaving it to nature to supply the deformity in her own best fashion. Who was more clever than he in diverting the patient's attention during the attempt to reduce luxations? For cataract, his experiments for ascertaining the comparative merits of extraction, keratonyxis, and depression, are all well known; and how he preferred the latter, and invented a needle for the purpose, in many respects superior to that of Scarpa.

There are also numerous other operations for which the medical world is indebted to the genius of Dupuytren — such as amputation of the lower jaw, and new processes for removing limbs at their articulations — at the elbow, for example, the hip-joint, and the knee. Among his improvements we may notice the rejection of the ligature of reserve *(d'attente)* in the treatment of aneurism; and among his inventions, the instrument which he substituted for the tourniquet of Petit, and that which he contrived for cutting the intestine without danger (the *Enterotome*) in artificial anus. To him we also stand indebted for the rules he has laid down for the treatment of prolapsed rectum by incision; for his practical suggestions on the nature of callus; and for the inclined plane which he devised for the management of old fractures. His ingenious methods of bandaging in fractures of the fibula and radius are well known. For the treatment of the recto-vesical and recto-vaginal fistulæ by the actual cautery, he has been celebrated; he has removed with success a portion of the sternum and contiguous cartilages affected with caries; and who has not heard of his bold and successful cure of wry-neck by division of the sterno-cleido muscles, — a plan which has since been followed by M. Amusat with complete success? Nor should we omit to add to this hasty list, his admirable inves-

tigations, in conjunction of M. Therard, relative to the asphyxia produced by sulphuretted hydrogen and nitrogen gases.* In short, it may be said, that perhaps there never has been any one man from whom the practice of surgery has derived so many and so great benefits.

His fame as a pathologist is only obscured by his superior lustre as a surgeon: yet it should not be forgotten that he was one of the founders of pathological science in France. It is true that Bayle, and Laennec, and Broussais, and Andral, have opened mines of wealth in this department; but Dupuytren was *among* the first, if not *the* first, to give an impulse to their labors. — *Lond. Med. Gazette.*

On Wounds of the Neck, by Dr. Dieffenbach. — The following conclusions on wounds of the neck are extracted from Rust's Magazine.

1st. Simple wounds of the neck, in which the skin only is concerned, very seldom heal by the first intention. Wounds of the neck, when they do not penetrate the air passages, may cause death, by the suppuration of the cellular tissue, and infiltration of pus.

2nd. Small penetrating wounds of the air passages are often mortal; wide wounds dividing the trachea or the air passages, on the contrary, often heal.

3rd. Suture is useless, as it augments the irritation and inflammation, and favors the flowing of pus into the air passages.

4th. Suture is very hurtful in large wounds of the trachea, the development of granulations bringing the divided edges together.

5th. The reunion of the skin over a wound of the trachea, the latter being also united by suture, is an operation that should be rejected.

6th. The reunion of the skin over an open wound of the trachea, ought also to be rejected, because the pus and blood flow incessantly into the bronchial tubes.

7th. The hood used for fixing the head in a suitable position, is a hurtful and painful bandage.

The best treatment is the following: For wounds of the skin, a simple reunion by adhesive straps: in wounds in which the trachea or larynx are concerned, there should be no bandage; but instead, let there be fomentations, and let the wound be frequently well washed; and in lieu of any apparatus of restraint, there should be two persons, whose constant employment is to

* We do not pledge ourselves for the completeness nor the correctness of this list of M. Dupuytren's contributions to medicine and surgery: we have merely copied it from an article by M. Lazarus, in a recent number of the *Gazette Hôpitaux.* — Ed. Gaz.

moderate the irregular motions of the head: most vigorous antiphlogistic treatment, mucilaginous drinks and narcotics. When the first danger is over, and suppuration is established, it will be necessary to arrange the dressing, so that the wound in the trachea may always remain free. Every thing should be removed from the orifice. — *Dublin Journal, Jan.*

On Dits.

It is said, that Dr. Rufus Wyman, who has so ably and so satisfactorily managed the concerns of the McLean Insane Hospital since its first establishment, some time ago resigned that office, and a Dr. Lee of Connecticut was elected to the office, and entered upon its duties several months since.

It is said that the Corporation of the Massachusetts General Hospital have instituted a new office in that establishment. A third physician is to be appointed, whose duty it will be to attend chronic cases, and perform auscultation and autopsies.

They say that the office is soon to be filled, and that any member of the profession who wishes for it, has now an opportunity to make application for it.

If these sayings are true, we are somewhat surprised, that in these newspaper days, the facts have not found their way abroad more extensively and definitely.

These institutions are public institutions, and we think it due to the public, that they be *officially* informed of the changes in men and measures which occur there. If the last rumor is true, we believe that medical men would be glad to be certified of the fact, in order that such of them as aspire to the office might take the requisite steps to obtain it.

We have been famishing for the want of Foreign Journals from which to enrich our pages with recent intelligence and choice matter; our wants are not yet supplied, nothing having been received for more than two months.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

SELECTED ARTICLES.

ART. I. — EVIDENCES OF INSANITY — FROM A LECTURE DELIVERED AT THE LONDON UNIVERSITY.

By A. T. THOMPSON, F. L. S.

GENTLEMEN, — Having made you aware of those diseased states of the habit which closely resemble insanity, but are not that disease, it is now proper that I should put you in possession of the knowledge of those symptoms for which you must look, in order to enable you to pronounce any person to be in a state of unsound mind. But, before doing so, I must state broadly my opinion, that medical practitioners, in setting aside the vague ideas of diseased mind, and observing closely the influences of physical causes on the mental powers, have fallen into the error of ascribing too much to the state of the body in mental disorders.

One of the first inquiries in a case of mental alienation, whatever character it may assume, is into the history of the family of the person supposed to be insane; and in particular, whether any hereditary taint exists in it. It has been seriously doubted whether insanity be hereditary: but the most current observation and experience have verified the hereditary character of the disease: it is a poison which has unfortunately mingled with the stream of population in this country, and it is impossible to anticipate the extent to which it may flow. The dif-

ficulty of determining this point, however, is very great the disease may remain latent through one generation,and appear in the next with augmented force; the hereditary character however, refers rather to the tendency or predisposition to the disease than to the malady itself; a greater susceptibility to those impressions which are likely to rouse it into action. This state, however, may exist to a great degree, and yet insanity may not appear, particularly if the regimen, the moral habits, and the pursuits of the individual be such as are unfavorable to the excitement necessary for awakening the malady, the seeds of which, as it were, lie concealed in his constitution. When, however, the reverse of this happens, and circumstances occur to operate as exciting causes upon a habit predisposed to insanity, the eccentricities which indicate the approach of the disease, and upon which you may be sometimes called to decide, will lead you to give a more cautious diagnosis than you would otherwise hazard, if you were not aware of the hereditary taint in the family of the individual. Let us take an example — A patient feels occasional pain or sense of fulness in his head, he becomes incapable of confining his attention, neglects his accustomed employments, is sleepless, loquacious, and, contrary to his usual habits, decides positively upon every subject that is started; is impatient of contradiction, and scorns reproof; if at the same time he supposes that offences are offered to him, and injuries inflicted, and plots contrived against him, which were never thought of by any other person; if he seem confused and wandering in his manner, like a half intoxicated man, and speak with eagerness and impatience, as if the ideas were not only too rapid for his utterance, but had crowded into his mind in a state of confusion: under such circumstances, the approach of insanity may be strongly suspected. Still, in such a case, you may justly hesitate in pronouncing an opinion; but this hesitation will be greatly lessened, if you are made aware that any of the branches of his family have been insane. In such a state also, we must carefully inquire into any change in the habits of the person; whether he have lately indulged more freely in the use of wine; if, from having been abstemious, he now drinks freely; if, from being reserved and modest, he talks boldly — is not backward in entering into society from which he refrained — acts obscenely — and tempers his wit and vivacity with unusual oaths; displays violent gusts of passion; upon such evidence we can have little doubt of, at least, the near approach of insanity.

It is seldom, however, that a physician is required to deliver an opinion in this stage of the disease : I say the disease — for the malady, although not very obvious to ordinary observers, already exists. It is true that the extravagancies of eccentricity may be so great, that it is extremely difficult to discriminate between them and insanity ; and the family of the insane person is always disposed to regard the precursory symptoms of insanity rather as eccentricities, as sallies of humor, than what they really are ; thence the disease is permitted to advance to its perfect and fully formed state, and health, fortune, and character, be all on the brink of ruin, before any medical opinion be required, or any proper care be taken of the madman. It is at this period, then, that you are most likely to be required to authorise confinement and restraint, or to confirm the truth of the allegation of insanity, when it becomes an object of medico-legal inquiry.

The approaches of insanity, however, are not always so progressive as the description which I have given you would lead you to presume ; the patient is sometimes seized in a moment ; the disease assumes at once its true character, and crimes are perpetrated, under circumstances, which baffle both the discriminating judgment of the physician, and the decision of the court. The state which is most likely to be mistaken for this sudden accession of disease is anger, under the influence of which crimes are often perpetrated, which receive pardon, from the conviction that the plea of insanity which is set up is well founded ; it therefore behoves you to be able to point out the distinction between ungovernable anger and the delirium of a sudden accession of mania. Anger is not confined to man ; the instinctive feeling of self-preservation, which probably is the origin of the passion, is felt even by the insect, who returns injury for injury ; and, in the human species, equally by the weak and the strong, the child and the man, the peasant and the philosopher. There is generally some real injury, or some supposed injury, before anger is roused ; a state of suffering is inflicted, either bodily or mental, which awakens in the person feelings of the most lively kind, to remove it : and to effect this the passion is roused, to make the offending person feel the power of the sufferer, and to know that the vengeance is equivalent to the injury. The degree of anger which is thus roused, is regulated greatly by the temperament of the individual ; in some persons the slightest causes raise great turbulence of spirits and ebullitions of blood ; in

others these states are not produced by the greatest injuries; in some the passion is overpowering, and terminates like the tornado; in others it continues after the agitating cause has ceased, gradually subsiding like the swelling billows, after the storm has spent its fury. Let us examine physiologically the effects of this passion on the individual, so as to be able to compare it with those of the delirium of insanity.

There are two distinct states of anger, which are known by the terms *burning anger* and *pale rage*.

In the first the heart and arteries are excited to inordinate action, the blood is propelled with violence to the surface of the body — thence the sensation of burning heat which is experienced; the face becomes flushed, the eyes sparkle, the breathing is convulsed and irregular, and as the muscles contract, as it were with clonic action, the blood cannot return readily to the heart, and consequently the veins of the face and neck swell, grow tumid, and seem ready to burst; the teeth are firmly set, from the spasmodic contraction of the masseter muscles, and the whole physiognomy assumes that aspect which fully justifies the adage, 'Ira furor brevis est:' — yet this state is not insanity.

In pale rage the reverse of this state occurs; a deadly, pale, and livid hue overspreads the face, the features shrink, the skin is corrugated, the eye-brows are knit, the eye has a dull rather than a fierce character, the blood is congested upon the interior, and the passion seems stifling itself; or, as Burns quaintly describes it in the person of a sullen dame —

> 'Gathering her brows like gathering storm,
> Nursing her wrath to keep it warm.'

Now, in either of these states, although the terror of public shame and punishment be thrown out of view in the excess of the passion, yet it immediately occurs after the crime which results is perpetrated; the sudden and associated thought of personal danger calms the fever; but this is not the case in the criminal who has been impelled to the deed of blood by the sudden accession of insanity; and this affords one point of comparison in forming a diagnosis, independent of those corporeal signs which I will point out in describing the paroxysms of mania. In the angry man, the recollection of the crime produces serious and deep reflections: in the madman, when the delirium subsides, instead of being reflective, he becomes gay and social, he remains unaffected by the act, ungoverned by reasonable conclusions. A powerful man, who had been sub-

jcct to epileptic attacks, when these subsided, became suddenly furious, and during the transports of his disorder, murdered two children and a woman. For this act there appeared to be no motive. He was confined in a lunatic asylum, and remained tranquil and did not discourse irrationally, and when questioned regarding the murder, replied that he knew nothing of it — that some person had informed him of his crime, but he had no more memory respecting it, than if it had been committed in his sleep.

I must not be misunderstood in using the term sudden accession of insanity. It sometimes occurs suddenly, without any obvious exciting cause; but in these instances there is generally a predisposition to the disease — some hereditary taint: more commonly, however, before such furious paroxysms occur as to resemble a sudden ebullition of violent anger, many symptoms are obvious, which indicate the approach of the disease; but they are too frequently either overlooked, or the relations of the patient oppose themselves to those measures which, if timely adopted, would generally prevent the evils which are vainly lamented, when it is too late to avert them.

An excellent illustration of this remark is quoted by Sir Alexander Crichton, in his Inquiry into Mental Derangement, from the third volume of the Psychological Magazine. (Here the lecturer read the extract — see vol. ii. p. 59.)

In this case the self-conceit, contempt for the prevailing opinions of the world, pride, and irascibility of the lunatic, were sufficient indications of approaching insanity; and it would be fortunate for the welfare of society, were the limits between real religion, and that fanaticism which leads to absolute frenzy, more distinctly and generally perceived.

Let us now suppose that the disease actually exists; and that your evidence is called for to determine the point. — What are the proofs which should lead you to pronounce the presence of actual derangement? To enable you to pronounce in either way, the disease, in the first place, must be thoroughly understood. The physician ought not to come into court, should this be necessary, merely to state opinions, but be fully prepared to support those which he advances, and to give the reasons which have influenced his decision. He must also be prepared 'to submit his opinion to the comprehension of the ordinary persons who are to appreciate his deposition.' In delivering his opinion, that the irregularity of the actions of the supposed lunatic can be accounted for only by admitting the

deranged state of his mind, the physician must also be prepared to prove that the state of insanity is sufficient to account for these; and that, in a sound mind, the impulses by which he is goaded for the accomplishment of his purposes, although they cannot be traced and explained, yet would not have operated in the same degree. To perform this duty in a satisfactory manner, the medical man must look at the prominent and most characteristic features of the disease, both as these increase his own acquaintance with it, and enable him more easily to convince others that he possesses such an intimate knowledge as alone can give weight and importance to his opinions regarding it. You must also always bear in recollection, that in the eye of the law, two witnesses deposing *sane menti*, are preferred and believed before a hundred, touching fury and madness: thence the necessity of being able to put forward the most prominent points which establish the fact of the existence of the disease. What are these points?

In the first place, the practitioner must distinguish the variety of forms in which the disease shows itself, whether as *Mania*, *Melancholia*, *Dementia*, *or Idiotism:* the first only, strictly speaking, are madness; the third is mental alienation from functional disease of the brain; and, in common with the two former, deprives the unfortunate object of it of the control of his person and property: the fourth, although usually classed with insanity, is evidently a distinct species — not a derangement of mind, but the deficiency of intellectual power, congenital, not acquired. The legal devision is somewhat different, as the following quotation from Littleton will explain. — 'Non compos mentis,' says Littleton, 'is of four sorts: 1. Ideota, which from his nativitie, by a perpetual infirmitie, is non compos mentis: 2. Hee that by sickness, griefe, or other accident, wholly loseth his memory and understanding: 3. A lunatique that hath sometime his understanding and sometime not, aliquando gaudet lucidis intervallis; and therefore he is called non compos mentis, so long as he hath not understanding. Lastly, Hee that by his own vitious acts for a time depriveth himself of his memory and understanding, as he that is drunken.'

Mania, considered in a medico-legal point of view, 'annuls a man's dominion over property; dissolves his contracts and other acts, which in his sane state would be binding; and takes away his responsibility for crimes:' in a medical point of view, it may be described as 'a state of mental alienation, accompa-

nied by turbulence and unusual ferocity in language and deportment, and by a comparative insensibility to ordinary stimulants.' From this description it is evident that the most striking features by which actual mania is to be recognised, are displayed in the physiognomy of the affected person, the condition of the nervous system, and the perverted state of his ideas. The physiognomy of mania consists chiefly in a peculiar cast of countenance, which is familiar to those conversant with the malady, but not easily described; it is something which seems to involve gloom, suspicion and ferocity. There is a wildness in the eye, which is protruded and glistening: it has a wandering motion in every direction, in a manner peculiarly disagreeable to a beholder. Sometimes, however, it is sunken and dull, fixed upon some object for hours together, or bent on vacuity; or, it seems to follow some phantom which is evidently present to it. During a paroxysm of high delirium, the eyes appear as if firmly pushed forward, and the iris is contracted. With this state of the pupil, we often find a condition of the scalp, which although it be not strictly physiognomical may be mentioned here. It is a 'relaxation of the integuments of the cranium, by which,' says Dr. Haslam, who first noticed it, 'they may be wrinkled, or rather gathered up by the hand to a considerable degree.' The gait of the maniac is quick and hurried, yet, frequently, he stops suddenly and turns round, but not as if to regard any thing, but more in the manner of an absent man. The prevailing complexion of maniacs is swarthy; and, when not naturally so, it soon acquires this hue. Out of two hundred and sixtyfive maniacs who were examined, 'two hundred and fifty,' says Dr. Haslam, 'were of a swarthy complexion, with dark or black hair: the remaining sixty were of a fair skin, and light, brown, or red haired. Along with these physiognomical characters, although the look is often fierce, and they are boisterous, yet they are frequently almost instantly subdued by the fixed gaze of a decided person; for pusillanimity is a remarkable trait in the character of the insane.' During the paroxysm, the action of the body is violent and vigorous, with great exertion of muscular strength; they remain awake for many days and nights together, talking incessantly, sometimes in the most boisterous manner; then suddenly lowering the tone, speak softly, and in a whisper, varying the subjects, and passing in the most incoherent manner from one subject to another, totally unconnected with it. This watchfulness, nevertheless, does not produce a dull and

sunken state of the eye, as in cases of sanity, worn out by watching: but it remains sparkling and protruded. There is, finally, a systematic dignity in mania, which never can be imitated by the most expert mimic, and is peculiar to this disease.

The second description of the obvious characteristics of mania depends on a change produced on the nervous system. Owing to this, there is frequently a great indifference to food, and the want of it can be sustained, for a very long time, without any apparent inconvenience. At other times the appetite is voracious, and every thing is swallowed which comes within the reach of the lunatic. From the same state of the nervous system, maniacs are able to endure greater degrees of heat and cold, and more sudden alterations of temperature, with impunity, than sane people; this does not, however, secure them from the usual effects of severe cold; indeed, they are very liable to mortification of the toes in winter; but at the same time, they suffer less pain than sane persons in the same state. There is, also, a general insensibility to external impressions; probably, in part, attributable to the great mental excitement absorbing, as it were, the whole of the attention; and it is not unlikely that the deficiency of memory, which is so remarkable in maniacs, arises from the same cause. This is indeed one of the most striking features of the disease, and is beautifully alluded to by our immortal dramatist, whose keen observation no state of human nature, whether diseased or healthy, escaped. Hamlet, in his interview with his mother, is accused of madness, when he desires her to look at the ghost, visible only to him: the Queen says,

> 'This is the very coinage of your brain;
> This bodiless creation, ecstacy
> Is very cunning in
> *Ham.* ——— What ecstacy?
> My pulse, as yours, doth temperately keep time,
> And makes as healthful music. 'Tis not madness
> That I have uttered: bring me to the test,
> And I the matter will re-word; which madness
> Would gambol from.'

Besides this altered state of sensibility, here is an evident perversion of sensation.

This accounts for the *tinitus aurium*, and the delusions connected with the organ of hearing, which are such constant accompaniments of mania. The conversations which the celebrated Tasso held with his familiar spirit, can be accounted for

on this perverted state of the faculty of hearing; and nothing is more common in most of the cases of mania.

(For Tasso's case, see Crichton on Madness, vol. ii. p. 40.)

It is this state of the ear which often leads to suicide; the unfortunate victim of it imagining that he hears the devil tempting him to self-destruction. One of the most curious cases of this perversion of hearing is related by Dr. Haslam, in his observations on madness.

It is scarcely necessary to say that the eye is also affected; and the hallucinations are usually connected with the objects of sight.

(The lecturer here related Colonel Watson's case.)

Smelling and touch are equally depraved in mania; of which many curious instances might be adduced were it necessary.

But mania does not always present such features; the permanent delirium is sometimes confined to one object; thence the disease is termed *monomania*. In this state, when the delirium returns at intervals, instead of running on in the same strain day and night, it is very difficult to detect the disease, unless we be made fully aware of the period when the paroxysm recurs. Individuals thus affected often appear reasonable, when conversing on subjects beyond the sphere of their delirium; and it is in vain to endeavor to perceive their insanity, unless we accidentally, or intentionally, if we are aware of it, touch upon the chord of the mind which is unstrung. In many instances, however, this species of the disease is connected with the same irregular, often desponding state of mind, which exists in moral insanity. Several instances might be brought forward; I will only notice one described by Dr. Prichard. (The lecturer read the case from Dr. Prichard's work.) One of the most interesting instances of this state was related to me by a learned and eloquent friend, who is now one of the Scotch judges. *(The lecturer here related the case of a young lady, whose lover died on the evening she was to have been married.)* In this state of the disease, there is apparently less danger to others than in the mania *furibunda;* but this is only apparent: during the paroxysm they often become dangerous both to others and to themselves; and sometimes they are so conscious of this, that they warn those about them, or entreat them to prevent their doing injury.

They are also conscious of the approach of the paroxysm, by a sensation of burning heat, with pulsation within the skull;

the pulse is generally full, hard, and strong; the temperature of the skin greater than natural; the bowels are costive, and tormina is often an accompaniment of this state. Patients laboring under monomania are more voracious than those in mania furibunda; but sometimes they endure hunger with great pertinacity. According to the doctrines of phrenology, 'Mania is not a specific disease, but merely an indication that the disease, whatever it may be, implicates the whole brain and all the faculties of the mind; whilst, in monomania, the morbid affection is strictly limited to one or two of the cerebral organs, and we are informed that the reason why it is so difficult to establish its existence in a court, arises from the patient having often a great degree of control over its manifestions.' I cannot venture to offer you any critical opinion upon these remarks, as I really confess that I do not understand them. I will describe to you the state in which the brain has been found, in post mortem examinations, when the disease has proved fatal, after I have taken a brief view of the remaining species of mental alienation.

Melancholia, the next species of insanity, is that form of the disease which is attended with some seemingly groundless, but anxious fear, which plunges the person into a gloomy and desponding state, and frequently leads to the commission of suicide or murder. It is a more common form of insanity than simple mania, and generally arises from mental causes, such as extreme study, religious fervor, love, grief, sorrow, and such like, operating on a habit hereditarily predisposed to the disease.

The corporeal influence of the depressing passions is a torpor in every irritable part, especially in the circulating and absorbing systems; thence the countenance becomes pale and shrunk, and the extremities cold; the pulse is small, and there is a sense of general languor over the whole frame. The pulmonary vessels, from the torpidity of the sanguiferous system, suffer congestion, and from this cause arises the sensation of fulness or bursting at the heart, which deep grief or sorrow induces. The respiration is slow, laborious, and interrupted with sighs and sobbing, which may depend on the nature of the manner in which the air is allowed, as it were, to escape from the lungs, and the necessity of a deep inspiration to supply the waste, and to relieve the congestion which had taken place on the right side of the heart. In this case, grief seems to act as a directly sedative power, exhausting the vital-

ity of the system, without any previous increase of vascular action. Now, when grief and sorrow are not so great as to produce this sudden depression, but continue a more moderate influence for a great length of time, so much disorder both of body and mind ensues, as to originate, in a *predisposed* habit, that species of insanity which we have now before us — *melancholia*. When this takes place, the disease may be read in the looks of the patient, though the physician must not trust to this alone. The face grows thin and emaciated, and the muscles weak and relaxed; the adipose support of the eye-balls is greatly diminished, and the eye retires into its socket; the eye-brows are drawn together, and the whole countenance is pale and dejected. The stomach and digestive organs are greatly disordered; pain is felt almost as acute as if gastritis or inflammation of the stomach were present, and is attended with vomiting after every meal; but this may be readily distinguished from gastritis by the pulse, the state of the skin, and the general expression of the countenance; the pulse is seldom quick, the skin generally cold, and the countenance more expressive of dejection and sorrow than pain, and the mind oppressed: it is not wonderful that (the wretchedness of life being the only picture present to the mind) the termination of *melancholia* should be suicide. In such a state, the power of comparing our ideas is lost; yet the self-murderer appears to reason, and to convince himself of the necessity of the crime which he contemplates. He however looks at two points only — the wretchedness of life, the dreary, unpromising, hopeless track which he sees before him, and that relief from suffering which the grave alone is capable of affording; thence his purpose is taken; he forgets every obligation he owes to society, every duty to his Creator, and at once plunges into suicide, to rid himself of the misery of his existence. This state of mind, and the reasoning to which it leads, are most beautifully described by two of the most observing of our native poets, Spencer and Byron.

> 'What if some little payne the passage have
> That makes frayle flesh to fear the bitter wave?
> Is not short payne well borne that brings long ease
> And lays the soul to sleep in quiet grave?
> Sleep after toyle, porte after stormy seas,
> Ease after warre, death after, doth greatly please.'
>
> SPENCER.

> 'I would not if I could be blest:
> I seek no paradise but rest.' — BYRON.

Having pointed out the manner in which grief, when long continued, disorders the corporeal functions, and, by constantly preserving one chain of thought, deranges the judgment, and produces melancholia, let us observe the temperament in which these symptoms usually occur, that our diagnosis may still be rendered more easy. The predisposed to this species of insanity are commonly of a dry and lean frame of body, with small and rigid muscles, not filled up in the interstices with fat: a sallow skin, or a complexion of a brownish yellow hue, with little or no red in the cheek: stiff black hair, hollow eyes, and large veins, particularly in the hands and arms, and a constant expression of dejection. As the disease advances these signs increase; the patients become subject to impressions of fear and despondency, and the stomach and digestive organs become depraved: occasionally there is much flatulence, and almost always the bowels are torpid. When the disease is fully formed, the pupils of the eye are often dilated, and the organ itself has a dull, muddy look, and seems to roll heavily on surrounding objects, or it gazes with a fixed unmeaning stare on vacancy. The adnata is often as if painted a dull purplish red; a strong light has a transient effect only on the pupil. The pulse is extremely vacillating, slow and feeble, and sometimes labors. The extremities are always cold: and it is probably owing to this state that the urine is abundant, pale and thin, and cloudless; sleep is rarely procured, and when it is present, is broken by visions and frightful dreams.

The general mental characters which we have to look for, to detect melancholia, are anxiety and despondency: a desire to do right, but a feeling which seems to arrest every effort at duty; a strong desire for relief, but despair of obtaining it, and consequent tædium vitæ. If suicide be not committed, the same object is attempted by murdering some person; and the victim selected is generally a child or person for whom the melancholic lunatic has a sincere love: and this desire either to commit suicide or murder is one of the most marked distinctions between melancholia, in which it exists, and hypochondriasis, in which it is absent. On this account, no species of insanity requires more close and attentive watching than melancholia, and none so frequently will be brought before you in a legal point of view. It particularly behoves you to caution relatives as to the danger of leaving such patients alone, especially when religious enthusiasm has had some share, as an exciting cause, in the development of the disease.

Religious enthusiasm, as giving birth to deep melancholy, is a common cause of suicide among certain sects in this country. The patient believes that he is deserted by the Almighty, and cannot be forgiven; the continued recurrence of this idea at length brings on a diseased state of the brain; this is followed by despair; and it is the desire of relief which drives the unfortunate individual to commit the crime of self-destruction. In some instances, although few, he believes that he is destined for eternal happiness; he cannot endure the delay which life presents to its accomplishment, and yields to the urgency of the internal impulse. In both cases the patients require to be watched.

But nothing is more common in such cases, than for the advice of the physician to be superseded by some meddling, injudicious friend; and suicide is a general termination of melancholia. (Here the lecturer related a case.)

Among the variety of forms in which melancholia displays itself, one particularly demands your attention. The variety which Sauvages terms melancholia attonita is of this kind. The patient preserves an immoveable posture, which he never alters unless forced: 'if he be seated, he never rises up; if standing, he does not sit down; if lying, he never gets up. Neither does he move his feet except they be pushed aside by a bystander; he does not shun the presence of men: if asked a question he does not answer, and yet he appears to understand what is said; he pays no attention to objects of sight or touch, but seems immersed in profound thought: if food be put into his mouth he will eat; and if liquids be presented he will drink. There is generally present some idea of being cast off or condemned by the Deity.'

Another curious form of it sometimes occurs, in which the hallucinations assume that form which in the age of superstition passed by inspirations of the Deity; and which among the multitude are occasionally regarded as such. This is well illustrated in the life of Saint Teresa, as detailed in Butler's Lives of the Saints. (See Crichton, vol. ii, p. 451, Appendix.)

If we suppose a case of melancholia ending in suicide, and a coroner's inquest assembled, if doubt arises from an imperfect history of the case, it is necessary to inquire what evidence can be procured from the post mortem examination. In general the brain of melancholic maniacs is softer than that of sane individuals; sometimes yellow, gelatinous, or bloody fluid, is

found at the base, or contained in cysts formed in the anterior lobes; occasionally the brain emits a peculiar fetid odor; but this often occurs also in the brains of epileptics and idiots. The softness serves to strengthen our diagnosis between mania and melancholia; as in mania, although it is softer than natural, yet it is less pulpy, particularly in the cineritious part, than in melancholia. Sometimes when the consistence is natural, the medullary portion is full of bloody points, from the great turgescence of the vessels. In general, the ventricles are enlarged, sometimes to a very uncommon degree, but, on the contrary, these cavities are sometimes much smaller and narrower than usual; this, however, is less common than the opposite state. In many instances, fluid is found in the ventricles, but not in all. In mania the choroid plexus is swollen, occasionally containing hydatids, occasionally with ossified spots; in melancholia hydatids are more common. The cerebellum is generally softened to the same degree as the cerebrum; the pituitary is enlarged, and most commonly harder than natural.

When such appearances are observed on post mortem examinations, coupled with the previous history of the case, there is much confirmation of the opinion that the person has labored under melancholia; and evidence of this becomes peculiarly necessary in proving the validity of wills, as my learned colleague will fully explain to you. With respect to the appearances presented in post mortem dissections in mania, which may be now noticed, it has been ascertained,

1. That no distinction generally exists with regard to the size of the head, between sane and insane individuals; nor is there any peculiarity of form.

2. The skull in maniacal patients, is commonly very thick; but this has not been observed in melancholics.

3. The *duramater* adheres strongly to the skull; and yet, in parts, fluid is found between them; this membrane has been found also much thickened, varying in color, and occasionally ossified.

4. The *pia mater* has been found thickened and studded with small globular, spongy bodies, and in a few instances ossified. The spongy bodies are situated chiefly under the crown and forehead, sometimes as large as a pea. The ossifications are commonly met with on the anterior surface of the anterior lobe of the brain, on the upper surface of each hemisphere, and on the flat surface lying on the falx. Sometimes coagula of

blood are found in the pia mater; but these often occur from violence during the paroxysm.

5. In the *substance* of the brain indications of inflammation are common; sometimes hydatids are found, and occasionally an insupportable fœtor is exhaled on cutting into the brain. Bonetus mentions some cases in which the brain was dry and friable: but this is a rare occurrence. On the contrary, the brain is more frequently soft and pulpy, even to an extraordinary degree.

6. In many instances water is found in the *ventricles*. This has been the case in all the brains of madmen which I have examined; and, in these instances also, the choroid plexus was generally diseased, and often studded with hydatids, particularly when the disease had been accompanied with epilepsy.

7. The *pineal gland* is sometimes found covered with serum; sometimes it is much larger, harder, and more tenacious than natural. Sometimes stony concretions are found in it, but not always.

8. The *pituitary gland* is, in general, harder than natural.

9. In the *cerebellum* the same spongy bodies and ossifications as have been noticed in the brain are also present: the membranes are also thickened and studded with hydatids; and sometimes coagula of blood have been found on the medulla oblongata and spinalis; and the consistence has corresponded with that of the brain.

Art. II. — Memoir of Dupuytren.

From the London Lancet.

In the number of the Lancet for February the 14th, we gave a biographical sketch of the late Baron Dupuytren. We now propose to take a view of him as a man of science, and record, while his memory is still fresh, some notice of all that he has done for the advancement of that art, to the perfecting of which his life and talents were incessantly devoted. It is not easy to convey a personal idea of Dupuytren. He was one of those individuals whose countenance always struck observers as emblematic of a mind whose exact character was not expressible in words. The contemplation of his features

left a 'je-ne-scai-quoi' impression on the feelings even of the most acute physiognomists, — half pleasurable and half dissatisfied, — a sensation at once of admiration and dislike, for which it was found impossible to account. Dupuytren was a man of middle stature, brown complexion, and strong make. In his youth he must have been extremely handsome. Those who possessed the personal acquaintance of both, must have observed some resemblance between Dupuytren and the professor of anatomy in the University of Dublin. The striking magnificence of forehead, expressive of intelligence of the highest order, and the small dark piercing eye which distinguished the one, had their rival in the other, — that eye, oftenest twinkling with playful malice in the one, and in the other darting those stern annihilating glances which rendered the presence of the great surgeon of the Hotel Dieu so imposing, and frequently so oppressive, to those who fell beneath his scrutiny. 'His eye,' says a French author, 'was enough to terrify a Corsair.'

But it was to the peculiar expression of his mouth that the physiognomy of Dupuytren owed its characteristic cynicism and appearance of universal distrust. Viewing the upper part of his face, and particularly his broad fair forehead covered by a thin white *cheveleure*, the figure was that of a man imbued with feelings of benevolence and accustomed to exert the most untiring patience. But soon would the impression be destroyed by a sudden curl of the lip, an almost imperceptible compression of the mouth, a fastidious though polite shrug of the shoulders, — tokens of the mental storm within, which, with calm exterior, he was disdainful to show, refusing to let his fellows become witnesses of any one feeling that governed him. Without the appearance of avoiding society, though present at all the learned meetings of the French capital, at the Faculty, at the Court, at the reunions of private life, Dupuytren was, intellectually speaking, a perfect anchorite. Admired by all, the friend (perhaps) of a few distinguished men, there was not one who could say 'I know him.' We have already hinted at a cause which, to many, explains the secret reason of the cynicism and distrust of his fellow-men that have thrown a shadow over the fairest days of Dupuytren's life. That cause was sufficient to account for even still more remarkable effects; but others attribute his constant ill-temper and *ennui* to a weakness which is common to a class of great men who are yet not sufficiently great to despise the malice of the envious. Dupuytren never forgot a kindness, and never forgave an injury.

His ambition was full equal to his talent, and under the coldest exterior he concealed a heart which was sensible to the slightest impressions. He felt conscious of the superiority which he so fully possessed; and to justify his pretensions, he sacrificed all the pleasures and comforts of private life, and condemned himself, as we have heard him say, to 'lead the life of a dog.' 'Above all things avoid being an insignificant man' *(ce qu'il faut craindre avant tout, ce'st d'etre un homme mediocre,)* was one of his favorite maxims, and to escape the chance of a humiliating mediocrity, he devoted every energy of his mind, succeeding to the utmost verge of his resolve, but not without most bitterly experiencing the stings of envy and calumny, nor without nourishing an implacable hatred against the authors of reports which a man of less susceptibility would have treated with deserved contempt.

The life of Dupuytren afforded various examples of the intensity of this dominant morbid feeling, and of the manner in which he avenged himself. How deep and ramified the root hypocrisy had taken in the vicious court of Charles the Tenth, is too notorious to need description. The royal favor there could only be obtained beneath the guise of professed religion. Every one had his confessor, and the worst sinners passed for the greatest saints. With this crowd Dupuytren was accused of mingling, in person and in object, and malice once went so far as to declare that he had dropped expressly from his pocket a little prayer-book within the precincts of the royal apartment. Innumerable epigrams sprang from the alleged incident, but, equally insignificant with the charge, they were soon buried in oblivion. The memory of the affront, however, never passed from the mind of Dupuytren, and years afterwards, on being accidentally called to attend the daughter of a countess, the supposed authoress of the story, he avenged himself by the infliction of treatment the most cruel and hartless on the mother at the death-bed of her daughter.

The dress which Dupuytren invariably wore was very peculiar. At the Institute or the Faculty, in town or at the court, in summer and in winter, he was always clothed in a little round-cut green body-coat, to which, when he visited the hospital, was added a small green cloth cap, of a cut altogether original. Those who have at any time followed his clinique at the Hotel Dieu, will remember the slow, the almost jesuitic pace, with which he entered the amphitheatre, the brim of his green casquette turned from his forehead, the white apron in

front, his right hand thrust into the bosom of his coat, and his left constantly applied to his mouth; for no matter in what society he found himself, whether in public or in private, at the hospital or presiding at a concours at the Faculty, Dupuytren had a habit of constantly knawing the nails of his left thumb and index finger, like one who suffers from some intense bodily or mental pain.

When seated in the professor's chair, he never addressed himself to more than a fraction of the audience; his back was turned upon at least three-fourths of the assembly, and he commenced with a low and indistinct muttering, which afforded little indication of the splendid, and on many occasions truly eloquent discourse that was to follow. The most profound silence always reigned in the crowded class which filled the amphitheatre of the Hotel Dieu, as though all were anxious to catch even the first word that dropped from his mouth; and if, during the lecture, any one permitted himself to betray a symptom of *ennui*, one of his searching glances, with a motion of the lip expressive of the most ineffable contempt, covered the thoughtless culprit with shame and terror.

In the wards of the hospital, the originality of Dupuytren appeared even with more relief. On rare occasions he descended so far as to joke with a patient; but towards the students, and even to his own dressers, he was cold, ironical, capricious, and tyrannical, to the last degree. Frequently did it happen, on questioning a patient for a few seconds, that if the answers were not given as clearly and precisely as the inquiries, he would punish the unfortunate *malade* by a shrug of his shoulders, and a departure without a moment's further attention to him. Not easily shall we forget the day when the mother of a child whose leg he was about to amputate, having forced her way into the amphitheatre, suddenly interrupted the operation; the self command of Dupuytren left him, and forgetting what was due to humanity, — to a woman and a mother, — he turned out the agonized parent from the room, with a *coup de pied dans le derriere.*

Dupuytren never tolerated the slightest suggestion or contradiction affecting his measures or opinions, and, as we have remarked, his treatment of the pupils who were placed under him in the hospital was marked with the utmost austerity. The number of his dressers at the Hotel Dieu amounted to twentysix. At six of the clock every morning he called over the list, and no excuse for absence was admitted. More than

once he has publicly degraded an *externe* who had disobeyed his orders, or showed some symptoms of insubordination, by tearing off his white apron and other such insignia ; and, on one occasion, it is said that he so far forgot himself as to strike the apothecary of the hospital, giving the offended pharmaceutist, however, the honor and 'satisfaction' of a meeting next day in the Bois de Boulonge ; but the duel was, we believe, prevented by the police.

It is a matter of sad experience, that talent and integrity alone are rarely sufficient to raise a man to the high posts of honor in a large capital. The candidate must have protection, and a *savoir vivre*, without which he may struggle for years in obscurity. Dupuytren was fortunate in both respects. At a very early period of his life, places were offered to him in the hospitals of several large provincial towns, but he always took care to recommend to the post one of the young rivals whose fame or competition might at a future day become troublesome to him. Thus, of five or six competitors who originally opposed him, he succeeded in placing one at Clarmont, one at Rouen, and one at Strasbourg, and he finally vanquished the remaining three — M. Roux, M. Marjolin, and M. Delpech, in the celebrated concours which took place for the chair of Operative Surgery, on the death of Sabatier, in 1812.

Dupuytren owed his appointment to the head surgeoncy of the Hotel Dieu, where he has ruled, the absolute master, for the last sixteen years, to an accidental circumstance, which deserves to be recorded, both as an example and a warning to hole-and-corner surgeons in all quarters. Previous to the year 1817, Pelletan was surgeon-in-chief of the Hotel Dieu. Dupuytren, who served under him as second, soon became an object of jealousy to the old professor. Distrust succeeded jealousy ; then followed mystery, and finally, a secret operation, by which Pelletan was completely ruined. In 1817, there was a patient in the female wards of the Hotel Dieu who was affected with with an enormous carcinomatous tumor of the upper arm. The disease extended to the parietes of the chest and to the neck. The blood vessels were altered, and several other unfavorable complications existed. On a consultation, Pelletan advised an operation, but Dupuytren, in a forcible manner, pronounced various reasons against any attempt to remove the tumor. The patient was undecided. In this state of things, Pelletan was imprudent enough to shut himself up with a few favored pupils, and perform the operation in

private, without having informed Dupuytren, or any other person who was absent, of his intention. The patient died almost immediately afterwards, and this event was followed by the retirement of Pelletan.

The reputation of Dupuytren as a first rate surgeon was now fully established. His private practice became considerable, and in 1820 the assassination of the Duke de Berry introduced him to court, thus laying the foundation, if not of his professional reputation, at least of the immense fortune which he has left behind him. If report speaks truly, the surgeon of the Hotel Dieu on this occasion, for the first time, lost the *sang-froid* and presence of mind for which he was so remarkable, and committed two essential errors, — one as a practitioner, the other as a courtier. In the first place he sounded the wound of the Duke, — a penetrating wound of the chest! In the next he abstained from answering the King when his Majesty addressed to him some question in Latin. Little faith, perhaps, will be placed in the excellence, or even, the existence, of the Latinity of Louis XVIII, for since the time of the scholarly James, the classics have fallen into disrepute at courts. However, here is the anecdote in detail, as told by a man of letters. Immediately after the accident, Louis, who loved his nephew tenderly, entered the sick chamber, surrounded by a crowd of princes and surgeons, burning with anxiety to know the probable issue of the injury, and at the same time anxious to avoid alarming the patient by any imprudent remark. The king turned to Dupuytren, whose appearance even then attracted his notice. Nothing would have been more simple than a whisper in the ear of the surgeon, conveying a request for his opinion. But so close an approximation of king and subject as that species of communication would require, was incompatible with the dignity of a royal personage, and so it was regarded by his majesty, who relieved himself from the dilemma by reducing his question into Latin, presumed to be the language of physicians, and one with which the patient was known to be but slenderly acquainted. But the words fell dead from the royal lips. No answer was returned to them by Dupuytren, whether from indisposition to reply, ignorance of the language, or confusion at the scene, and M. Dubois, who happened to be present, answered for him.

It was, however, rarely indeed that Dupuytren allowed himself to be surprised. If he was excelled in a few particulars by some surgeons, — if, for example, as we admit, M.

Roux was quicker and more dexterous at an operation, — Dessault more brilliant as a professor, — Boyer more prudent and humane, and Marjolin more profound, — there was none who could compare with him for imperturbability of mind in the midst of accidents or untoward circumstances, none whose eye was more certain, or whose hand was more firm. Like other surgeons, he has made mistakes. He has opened an aneurysm for an abscess, and has cut for the stone when no calculus existed in the bladder; but such errors only gave to Dupuytren an opportunity of displaying his superiority. They never disconcerted him. Thus, upon one occasion, when extirpating a tumor from the neck, he accidentally opened a large vein, and the patient expired in an instant, from the admixture of air with the blood. Without being affected by an accident which would have disconcerted nineteen out of twenty practised men, he coolly turned to the class at once, to discuss the cause of death in an extemporaneous lecture, which has seldom been surpassed or equalled for the excellence of its matter and arrangement.

It was, indeed, as a clinical professor that Dupuytren obtained the surpassing reputation which placed him at the head of European surgeons. He succeeded, at the Hotel Dieu, the most eloquent lecturer that France ever produced, and in his new office not only sustained the character of the school at its full height, but raised the clinical instruction to a point which must be regarded as little short of perfection. The 'Leçons Orales,' published under his direction, and from which we have translated so many lectures, convey, perfect as they are, but a feeble idea of the rich and well-selected materials which he has been for years submitting, without intermission, to the attention of the pupils of the hospital. Dupuytren was not what is usually called an orator. He seldom had recourse to literary embellishment, or borrowed from the works of others; but his elocution was simple and elegant, his language clear and perfectly correct. Weariness never stole over his audience during the lecture, from the assemblage of useless details, or superfluous repetitions. On the contrary, his discourse, which flowed from him with the ease and fluency of a perusal, was stored with facts selected from his own practice, and arranged with a clearness that showed how perfectly he understood and had studied every branch of the art.

As an operative surgeon he was successful, without being brilliant; indeed it is notorious that he failed much less fre-

quently than his rival at La Charité, M. Roux, who, in spite of his wonderful dexterity, and excellent method of manœuvring the knife, lost at least three patients for every two of Dupuytren. The cause of this difference is easily explained. Surgery is no longer what it was a century ago, — the art of lawfully cutting and hacking the human body. A more rational direction is given to the studies of those who commence their surgical career. These first apply themselves to medicine as the parent art, and regard surgery in its true acceptation, viz. as a branch of medicine, in which the occasional employment of instruments is demanded. How numerous are the diseases awarded to what is called 'surgical practice,' which not only are 'internal,' but are quite beyond the reach of instruments! Regarding surgery in this its true sense, we hesitate not to place the late Baron Dupuytren at the head of European surgery. He operated with great dexterity and with immovable *sang-froid*. But his chief qualities consisted in the perfect correctness of his diagnosis, and the admirable manner in which he managed the therapeutic treatment of his patients. In the great majority of all descriptions of cases, the great difficulty is to establish a correct diagnosis, for on that alone can treatment be correctly founded. The one is subjective to the other, and is a secondary branch of the art. In diagnosis Dupuytren was equalled by no surgeon of his time. A few questions, often put in the most careless tone, a single look, the application of the hand on the abdomen, were sufficient to reveal indications, which, assembled in his mind with almost inconceivable rapidity, afforded conclusions to the surgeon that seldom if ever were erroneous. Not that he was infallible; and it was a reproach that he did not evince that frankness of manner and readiness to acknowledge the commission of an error, which should distinguish all men, and especially surgeons. So far from exhibiting a willingness to admit the commission of a blunder, Dupuytren was not ashamed to resort to unblushing falsehood to conceal it. On one occasion, for instance, at the Hotel Dieu, where the intestine had been opened during the operation for strangulated hernia, Dupuytren, when showing the piece to the class, forcibly thrust his finger through the incision, and dilated with eloquence on the curious way in which gangrenous inflammation sometimes *cuts through the intestine like a knife*, although the interne by his side (at the risk, as he himself said, of being kicked) now and then gave the professor a hint that he was mistaken, and that the opening which he

demonstrated was not due to inflammation but to the bistoury. Traits of this kind were not unfrequent. The *amour-propre* of Dupuytren even pushed him to the publication of inaccuracies where he was certain of being detected. Thus in his 'Leçons Orales,' and long before them, in 1824, he boasted that the mortality of the Hotel Dieu was reduced to one patient in twenty, one in nineteen, or one in eighteen, as a mean term; but authentic documents, since published by the authority of the Council-General of hospitals, showed that at that very period the mortality amounted to one in fourteen.

As a writer his reputation is neither great nor extended. He was, in fact, so occupied by practical duties that he had not time to write. It was chiefly as a clinical professor that he shone, and during the twenty years that he gave instruction, the clinical school of the Hotel Dieu has produced more brilliant surgeons, and disseminated more new and wholesome ideas of surgery, than any other establishment of the kind in Europe.

If Dupuytren, however, did not himself write, yet his ideas have been taken up and published by others, and it would not be a matter of difficulty to enumerate a number of excellent works, of memoirs which have covered their authors with renown, that were taken from the fertile source of his clinical instruction. The little which Dupuytren has furnished from his own pen, is to be found in the memoirs of the Royal Academy, and in the Dictionary of Medicine. Amongst the most remarkable we may enumerate, *in anatomy*, Researches on the Spleen, on the Veins of Bones, on Fibrous and Erectile Tissue: — *in physiology*, on the Nerves of the Tongue, on the Motions of the Brain, on Absorption, and on the Influence of the Eighth Pair of Nerves: — *in pathological anatomy*, Memoirs on the Neck of the Long Bones, on False Membranes, on Amputation of the Lower Jaw-Bone, on Ligature of certain Arteries, on Fracture of the Fibula, on Artificial Anus, on Diabetes Mellitus, on Congenital Luxation, and on Retraction of the Fingers. It is said that he has left an unpublished treatise 'on the Diseases of the Glands.'

Besides these permanent 'titles,' Dupuytren has modified a great number of operations, and is the author of several most useful instruments. For example, his *enterotome* is sufficient alone to have immortalized any reputation; indeed we should be inclined to place his operation for artificial anus after that of lithotrity, and it is infinitely more successful. Thus, up to

1834, fortyone operations, the greater part of which had been rendered necessary by gangrene of strangulated hernia, were performed with the enterotome. Of these only three were unsuccessful; the remaining thirtyeight patients were cured without any accident or risk. Since 1824, at least one hundred operations of the same kind have been performed and with similar results. Dupuytren also invented a double-bladed bistoury for the bilateral operation, a cataract needle, a compressor in cases of hemorrhage, a porte-ligature; and, as we have mentioned, he has introduced excellent modifications of most of the great operations in surgery.

By his death the science has lost one of its most solid ornaments, and the school of Medicine in Paris its most accomplished professor. The void which he has left is immense. Who can fill it? Who can now succeed to that chair with eclat, which has been filled by Dessault, Pelletan, and Dupuytren? That it will even be filled to the best advantage which circumstances admit, we have reason to disbelieve. Intrigue is at work, and there is cause to engender a fear amongst the profession at Paris, that the clinical instruction in the Hotel Dieu will be intrusted to one of the worst clinical lecturers in the capital. M. Roux removed to the hospital on Monday last, and his place will be filled by Velpeau.

ORIGINAL ARTICLES.

Art. 1. — Peyer and Brunner.

In 1677, John Conrad Peyer published a treatise entitled *Exercitatio Anatomico-Medico de glandulis Intestinorum.* In 1687, John Conrad Van Brunner published his *Dissertatia Inauguralis de Glandulis Duodeni.* The names of these two men, after resting for more than a century in the quiet repose of forgetfulness, have been by the labors of some modern pathologists disentombed, and they now bid fair, borne up by the works whose titles are given above, to float safely and triumphantly down the treacherous river of time. Since the important investigations of Louis, Andral, Chomel, Cruveilhier and others

have made the names at the head of this article so familiar to our eyes and ears, we have thought that a brief sketch of the men alluded to, might be interesting to our readers.

Peyer was born in Schaffhausen, a small canton of Switzerland. While engaged in dissecting the stomach and intestines of the turkey, he found a large number of glands. This discovery led him to search for them in the human subject, and he gives, in substance, the following description of what he found. ' These glands,' says he, ' vary in size, figure, position and density. They are very small at the commencement of the small intestine, increasing in size as they approach in situation its inferior extremity. Their number is small in the duodenum and jejunum ; they are more numerous in the ileum. In certain situations in this intestine they form a sort of glandular plexuses. The form of these plexuses, is sometimes oval, sometimes egg or olive-shaped, and the number of glands which enters into their composition varies from ten to forty. The summits of the glands are perforated with small orifices, from which there is discharged a certain quantity of serosity when they are compressed. The situation of these glands is in that part of the intestine opposite to the attachment of the mesentery. The volume of each follicle varies at different ages, and in different kinds of animals. Ordinarily they are about as large as a horse-radish seed. They are largest in old subjects, and in children they are sometimes so small as to be perceived with difficulty. Besides the plexuses there are other solitary or isolated glands spread over the mucous membrane, more numerous in the large than in the small intestine.'

The description given by Peyer is, according to Portal, very minute and detailed, but the substance of it is comprehended in the foregoing abstract. Severinus, the distinguished Neapolitan professor, and author of a work on Medical Pyrotechny, described at considerable length the glands to which Peyer's name is attached. This was thirtytwo years before the publication of Peyer's description. The latter physician published a treatise on those abdominal diseases in which the intestinal glands were found altered. A few years after the appearance of the anatomical account of these organs, Peyer published an historical treatise, in which he enumerated all the authors who had, at different times, spoken of these glands, giving to each his due share of credit, and claiming for himself only the merit of having given of them a full and accurate description.

After the publication of these works, Peyer visited Paris, where he attended the lectures of the celebrated Duverney. He devoted himself with great zeal to the cultivation of morbid anatomy, and in connexion with this subject, we find the following observations. 'I wish those who open dead bodies in order to elucidate the nature of disease, would first give an exact description of the malady, and then of the alterations found in the body after death. Conclusions may then be deduced from the facts observed, and applied to the different diseases which may attack the organ that has been found affected. After this the opinions of authors on the subject may be cited.' Peyer published a large number of observations and treatises on pathological, descriptive and comparative anatomy.

Brunner was born at Diessenhofen, January 16, 1653. At the age of sixteen he was sent to Strasbourgh to study medicine, where he received his doctor's degree in 1672. He visited Paris in the same year, where he attended the lectures of Duverney and Dionis. From Paris he went to England, where he became acquainted with Oldenburg, Willis and Lower. He then visited Holland to see Ruysch and Swammerdam. Endowed with great talents and high ambition, and his mind stored with extensive knowledge, he returned to his native country, where he soon became distinguished. He was appointed professor of medicine at Heidelberg, and a chair was soon after offered him at Leyden. In 1685, Charles, Elector Palatinate, called him to his court, where he resided for some time. In 1695, he was appointed first physician to the Elector John William. He was afterwards confirmed in the same place by Charles Phillipe, brother and successor of William, who also appointed Brunner one of his privy counsellors, which office he held till his death. The most distinguished Princes of Germany called him in their sicknesses. In 1690, he attended Charles, Landgrave of Hesse-Cassel: in 1706, he was called to Francois-Louis, Elector of Treves; in 1708, he visited the Empress at Vienna, and in 1709, he was called to the king of Prussia. In 1711, John William, Elector Palatinate, conferred on him titles of nobility. In 1720, he was consulted by Frederick, king of Sweden, and in 1722, by Frederick, king of Denmark, and his queen. He visited at Hanover, the prince, afterwards George II of England. Brunner died at Manheim in 1727, where he had gone on a visit to the Elector Maximilian-Emmanuel, then suffering with a dangerous disease.

The work which has brought Brunner's name down to us, is entitled *Dissertatio inauguralis de Glandulis duodeni.* The glands herein described are entirely distinct from those of Peyer. It would seem from the title of the treatise, that the author had confined his investigations to the duodenum, although the isolated follicles of the whole track of small intestine have since been called by his name. Brunner says that the glands described by himself, secrete a fluid resembling that furnished by the pancreas, and from this circumstance he gave them the name of *pancreas secundarium.* Peyer's glands, he says, secrete a mucous fluid.

Brunner made many experiments on animals. On one poor dog he first performed the operation of gastrotomy. Sometime after this he removed the spleen. The animal having recovered from the effects of these mutilations, Brunner removed a portion of the pancreas. The dog remained for a long time exceedingly feeble and languid, but finally recovered his strength, and escaped from the place where Brunner had carefully kept him confined. 'What a loss for an anatomist!' exclaims Portal, from whom we derive the materials for this sketch, and, '*Abiit igitur*,' says Brunner, '*atque aufugit quem sane vel pretio redimissem canis liene et pancreate mutilus, variis insuper stigmatibus, et cicatricibus notabilis: vivum Philosophiæ experimentalis exemplar.*

The glands of Peyer and Brunner are variously denominated by different authors. The former are frequently called the isolated glands or follicles of the intestine, and they are found throughout its entire track. The latter are denominated by Cruveilheir, agminated follicles, by Louis the eliptical plates, by others oval plates or patches, and they are almost invariably found situated opposite to the insertion of the mesentery.

COLLECTANEA.

Cauterization of the Larynx in Chronic Aphonia. — When we analyzed the interesting observations of M. Trousseau on croup, and the employment of the nitrate of silver as a local remedy for that fatal disease, we were unacquainted with the fact, that four years ago he had succeeded in rapidly curing a

case of chronic aphonia, by cauterizing the larynx. Since then he has collected a sufficient number of facts to recommend with confidence this novel practice. Ulceration of the larynx is one of the most frequent causes of chronic aphonia, and the former depends, in most cases, either upon phthisis or syphilis ; however, the mode of treatment recommended by M. Trousseau is scarcely applicable to aphonia resulting from actual loss of substance, and must, therefore, be limited in its application. The author distinguishes two forms of chronic aphonia, — one generally affecting females, and of a nervous character, the other coming on more slowly, subject to variations, and finally becoming complete. This form is often seen in singers, public speakers, &c. Either of these varieties of aphonia may, or may not, be accompanied with inflammation of the mucous membrane of the pharynx and larynx. They are combated by several remedies, but particularly by cauterization of the affected parts. M. Trousseau gives a full description of the manner in which this may be effected with a small twig of whalebone, armed with a morsel of sponge, half an inch in diameter. The cauterization may be performed with a saturated solution of nitrate of silver, and repeated once a day for a fortnight without any danger of eroding the mucous membrane, or producing anything more than a slight degree of nausea. M. Trousseau insists forcibly on the innocence of the nitrate of silver thus employed, and supports his assertion by several valuable cases. We give a hasty sketch of one as an example : —

Case. — H. Maiblet, 20 years of age, received into the Hotel Dieu on 29th of August, 1831. During the course of menstruation she was exposed to cold ; the menses ceased, and a complete aphonia supervened. General and local bleeding were employed. In two months the menstrual discharge returned, but no modification in the state of the voice. The disease had now lasted three months. On being received into the hospital she was bled to syncope without any benefit. M. Trousseau now resolved on cauterizing the pharynx and upper part of the larynx. The operation did not take up more than twenty seconds ; it was followed by some cough but no pain of throat. On the following morning no change, but fortyeight hours after, the aphonia began to disappear, and there was some slight pain in the larynx On the fourth day the patient could speak distinctly, and on the 10th of September she left the hospital perfectly cured, and since then there has been no relapse.

In addition to this case M. Trousseau details three others in which cauterization was employed with equal success. In one the patient was cured on the third day ; in the two others the treatment extended to a month. — *London Lancet.*

Death by hanging, unattended with any of the usual Characteristic Lesions. By M. A. Gras.— Josephine, aged 27, was admitted into the Saltpetriére on the 21st December, 1834. In the course of a few days she attempted to strangle herself with a handkerchief; then with her stocking. A strait-waistcoat was put upon her; but this was subsequently removed on her giving a promise not to do herself mischief. On the 3d of January she was questioned as to her history, when she gave an extraordinary, but rather incoherent account of herself. She did not know whether any of her family had ever labored under mental derangement, and she had never had any malady to signify, except, perhaps, some *nervous attacks*, or *vapors*. At the age of fourteen she left home, and went to service; and since then, as she described it with deep repentance and remorse, she had lived a very disorderly life. After many changes and chances she formed a connection with a man who quitted her when she proved with child. Her grief caused her to miscarry. This was in January, 1834; after which she came to Paris, and lived with her sister till the month of September. She then became *femme de chambre* in the family of the Marquis de R——. It was after her arrival in Paris, she said, that she began to *look inward* upon herself, and applied to a confessor, who frightened her extremely by telling her that she was lost. Her melancholy was aggravated from that moment, and she was the victim of religious terrors. She did not, however, neglect her service, nor give any dissatisfaction to the family she lived with; but beyond the door she could not go, though aware that it was her duty sometimes, and though she wished it. Soon after it became necessary to send her to the Saltpetriere.

At her admission, she was observed to be of a moderately full habit of body, dark complexion, and of a bilious temperament. The expression of her countenance was that of melancholy. She spoke little, and when she did it was only to say how very wretched she was; that she did not know what would become of her soul; that she deserved to be starved. When visited afterwards, she requested to be put to death; she said she should never get well; but she complained of no bodily ailment, except some slight pain at the pit of the stomach. The only medical treatment she received was some slight purgatives: twice, indeed, she got croton oil. She also had some baths; but she ate little, and only when pressed to take food. Three days before her death, she seemed on the whole better. But on the 20th, she asked me, at the visit, if I thought she should live; and that evening she several times struck her head against the wall. On the 22d she arose at four in the morning, went down to a cellar where there were several cords, which she had, no doubt, secreted there some days before, and hung herself from

one of the rails of the staircase. She was not cut down till an hour and a half afterwards, when all efforts to restore her to life proved vain.

Upon examining the body, at eight o'clock, A. M., there was no distortion about any part of it; the features and lips were pale; the mouth and eyes partially open. At ten, although the mean temperature of the weather was at the freezing point, there was still a slight moisture on the surface. At four in the afternoon, the elbow and knee-joint were still flexible, but the jaws were firmly closed.

The autopsy took place thirty hours after death. At this time there was cadaveric stiffness; the skin generally was pale, but there was no tumefaction any where observable. The tongue lay within the alveolar processes, and there was no froth in the fauces. On opening the head, much blood was found on the exterior of the dura mater; but this effusion was partly, if not entirely, owing to the blows of the hammer used in breaking open the cranium. The substance of the cerebrum was injected; the optic thalami, the corpora striata, the cerebellum, the protuberance, and the cortical substance, less so. No adhesion of the meninges. The whole brain firm, and the cranium tolerably thick.

The skin of the neck presented a furrow, which ran in an oblique direction from left to right, and from below upwards; the most elevated part of it corresponding to the angle of the jaw on the right side. At this part there was a depression caused by the knot of the cord. The furrow passed in front of the os hyoides; so that only the vessels of the left side of the neck were compressed. *Beneath* the furrow on the left side, the external jugular vein was distended with air. Along the tract of the depression the skin was yellowish, like parchment; it adhered strongly to the subcutaneous tissue, but there was no ecchymosis, no fracture or injury of the os hyoides, nor of the cartilages. There was no trace of the furrow on the subjacent muscles; no rupture of the coats of the vessels, either of the jugulars or the carotids; nor was there any luxation of the vertebral column.

In the lungs there was very little blood; their color was pinkish, and in their upper portion some tubercles were observed. The parietes of the heart were thick; they contained but little blood; and what was remarkable, the left cavities more of that little than the right. A very small quantity of blood in the inferior cava.

The stomach appeared shrivelled; slightly red in some places. Of the small intestine, the color was a uniform light rose-pink. The liver seemed to be of a somewhat deeper red color than ordinary. Spleen and kidneys normal. The uterus and vagina presented no unusual appearance; but the ovaries were very large,

and had on their surface four or five little serous cysts, each about the size of a vetch. One of them, smaller than the rest, was embedded in a little clot of blood, with a yellowish tinge.

Above the left knee there was some slight excoriation. The fingers of both hands were gently flexed; the thumbs not so.

It will be perceived that there is a strong analogy between this case and some of those which were published in the Archives Générales, in the year 1823, by M. Esquirol: but, at all events, it proves that suspension *may* take place during life, and leave on the dead body no sign of mortal lesion, — no bloated face, no protruded or swollen tongue, no ecchymoses on the neck, no rupture of vessels or their coats, no luxation; no more than a simple furrow, where the skin is yellowish and crisp, and the subjacent tissue somewhat condensed; nothing, in fact, to enable us to say whether suspension has been effected on the living body or on the dead. — *Lond. Med. Gazette.*

Cold Water in Surgical Diseases. — M. Berard, in a paper on this subject, after citing numerous cases, comes to the following conclusions: —

1. Cold water, topically applied, should be made to act in a uniform, continuous manner, and until no fear remains of inflammatory action; irrigation by one or more capillary syringes is most effectual; wet cloths are less so.

2. Continued application of cold water is an infallible means of preventing and combating inflammation in the worst cases of traumatic lesion, as in those of bullet wounds, crushing weights, those from the dissection and extraction of cysts situated among the tendons of the hands, &c.

3. Gangrene is the only thing to be feared from long continued irrigation; when it supervenes it is not in the wound, but the parts around it, and comes on when the whole of the circumjacent parts have been bruised and disorganized by violence; it is caused by the obstacle opposed by the cold water to the free circulation of blood.

4. M. Berard has had no opportunity of using cold water after amputation, but he firmly believes that it would prevent most of the local and general accidents which the operation too frequently induces, and would also favor union by first intention. — *Archives Generales, Jan.* 1835. — *Lond. Med. and Surg. Jour.*

EDITORIAL NOTICES.

The endemic disease which appeared at the Dedham factory a week or two since, and which was spoken of in the papers as an anomaly, was typhus fever of no very aggravated character. Between twenty and thirty persons were seized, of whom one died, and the remaining are convalescent. We expect an account of all the ascertained facts in relation to the disease, from a medical friend who visited it, and has made careful observations and inquiries about it on the spot.

We understand that Dr. Boott of London, who was elected to the chair of Natural History lately established in Harvard University, has declined the office; and that provision has been otherwise made for the regular instruction to the undergraduates in that department, the present season.

The short course of Anatomical Lectures which is annually given to the senoir class at Cambridge is now going on. These lectures are always favorite exercises with the students; but the time allotted does not allow the physiological instruction to be so extensive as it should be. If some of the organic laws, and principles of vitality, which can now be little more than enumerated, were thoroughly taught, and the physical, mental, and moral mischiefs consequent on the abuse of them, plainly and impressively presented in connection with the demonstration of their respective organs, we are confident that the professor of anatomy might do more to secure the health, usefulness and virtue of the young men, than is effected by all the direct moral and religious instruction, excellent as it is, which they receive during their collegiate life.

We might add to the collection of On Dits respecting medical offices and appointments, which appeared in our last number, several new ones more or less interesting, and more or less probable; but in the immediate expectation of some 'res gesta' to communicate, we defer them for the present.

To Correspondents. — Communications have been received from Drs. E. Warren, Colby, Palmer, Roby and Porter, but all of them too late for insertion in this number.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim." — WILLIS.

SELECTED ARTICLES.

ART. I. — DISEASES OF THE KNEE JOINT. — A CLINICAL LECTURE

BY SIR CHARLES BELL.

THE house-surgeon read from the case-book a list of fifteen patients affected with the disease of the knee-joint.

HERE then, gentlemen, is an argument eloquently delivered. By this simple enumeration you are told that you have no apology for ignorance of this subject; you have every opportunity of studying it. I shall limit my endeavors to the statement of some principles and of some circumstances; for the rest, you have but to look about you.

In the first place, why is it that the knee-joint is so frequently the seat of injury and disease? Because the bones are very large, and it is the largest and most superficial articulation of the body. The superficial position of the bones, and of the complex apparatus of the joint, make it not only liable to the influence of cold, to changes of temperature, but also to the influence of constitutional weakness. You will find, for example, that when there is disease of the bones, it is generally the superficial bones that exhibit the effects first, and to the highest degree; and when scrofulous disease affects

the ligamentous textures, the knee-joint is the most exposed to that influence.

The knee-joint being composed of bones which form each a large surface, and which have no socketing, there is no strength of the articulation from the mechanical adaptation of the one bone to the other, as in the hip-joint, for example; the surfaces are little more than placed in simple contact: hence it is necessary that the ligaments should be strong and numerous. I think you enumerate some sixteen ligaments as belonging to the knee-joint. Then, with regard to the synovial membrane, you know that it extends much further in the knee-joint than in any other, and necessarily so, not only because of the size of the joint, but from its being continued under the patella, and under the tendon of the quadriceps muscle. If the puncture of a joint be dangerous, the puncture of a joint the cavity of which is the largest, will be the most dangerous. Hence it is that the knee-joint is most exposed to injury, to constitutional influence, and that, when inflamed, the case is more formidable than when there is a similar affection of any other joint.

The very last case we looked at in the ward was an instance of a blow upon the knee-joint. Now that blow with a sharp stone upon the head of the femur, where it is covered by a reflection of the synovial membrane, is an injury to that membrane; and you may observe, as in that case, that the inflammation from such an accident rises very slowly — that is the character of the part; but at length the inflammation rises to an excess which you can scarcely describe in words too strong. This peculiarity is much more remarkable when the capsule is punctured, than when it is hit and injured by a sharp corner without being punctured; the inflammation comes on very, very slowly, and you may be thrown off your guard, because many days may elapse before the utmost violence of the inflammation is exhibited. But at length you see the patient tossing with pain, rigid — not with convulsions or tetanus, but in the expression of intense suffering; his countenance flushed, his eye brilliant, and his pulse indicating the very excess of inflammatory action. Mark, then, that the inflammation of the knee-joint is attended with all this violence, but comes on so slowly that you are very apt to be deceived, and allow the patient to exercise a freedom of the limb which you have afterwards much reason to regret.

You will naturally inquire, what is to be done in these

cases? When once you have seen a patient in this excess of fever and inflammation, you will observe the necessity of general bleeding, not merely to avoid the injury of the joint itself, but to prevent the violence of the action falling (of which, from the degree of excitement, there is danger), upon some other more important and vital organ. For these two reasons you bleed generally; and then comes the necessity for repeated local bleeding and fomentations. You find the patient treated by purging, and the saline draught with antimony; but frequently there is a necessity of giving calomel and opium to quiet pain, and sometimes colchicum. By this time you will find not only the joint, but the limb, tumid all over; and when the violence of the pain and inflammation has a little subsided, you must cover it with slips of linen dipped in the ceratum plumbi acetatis and diachylon, so as to counteract in a slight degree the effusion which takes place in the cellular membrane. You mark with great care the coming on of abscess, and you open it early, otherwise the matter will burrow among the muscles. You will remember that it does not necessarily follow that these suppurations are connected with the knee-joint; they are often consequent upon the violence of inflammatory action in the limb, and are quite different from the abscess which you see accompanying white swelling.

What is the termination? Generally, in anchylosis. The question will arise, in practice, what you are to do when the limb is getting fixed; whether you are to say that the anchylosis is a happy termination of the inflammation, with which you shall not interfere, or whether you are to attempt the restoration of the motion of the limb. Where you have a scrofulous constitution to deal with, you had better let the joint alone, and be satisfied with a stiff limb; but where there is youth and health, and no disposition to disease of the joints, no strumous tendency, you may begin to work upon it with embrocations, with friction, and with passive motion; that is to say, if you find the surfaces are not actually grown together by bone, you may by friction, warm oils, and motion (not under the effort of the patient, but by the hand of the rubber), gradually relieve the adhesion of the parts, and give freedom to the tendons in their sheaths. It is surprising how readily the whole apparatus of the joint is redeemable by being put to use. You will, however, be prepared for this, when you observe how a joint is formed when a bone is broken. If a

broken bone, by motion, form a joint, how much more likely is a natural joint to become again moveable, though much disfigured and much destroyed in all its natural apparatus;—upon the great principle of Mr. Hunter, "put the part to its proper use, and the natural structure will be rebuilt."

Last season there were some very interesting cases, which I may again shortly mention. There were two cases in which the knee-joint was opened; one of them was by an accidental wound, and in the other the operation was performed for extracting a loose cartilage: in both, the inflammation arose to the most severe degree. I will not hold up these two cases to you in contrast again, but take the opportunity of pointing out to you a mode of avoiding the operation of extracting loose cartilages; and I am never more happy than when I can arrest your hand in using the scalpel, by the flourish of which so many surgeons at home and abroad obtain most undeserved reputation.

I alluded to one effect of these violent injuries of the joint —the formation of loose cartilages. You hardly ever find a patient with loose cartilage but you learn that at some previous time there has been an injury and a violent inflammation; so that it is a prevailing, and, I believe, correct opinion, that these loose cartilages result from an inflammatory process affecting the natural cartilages. However that may be, the symptoms are so distressing that we are tempted to cut into the joint and extract the loose body. But I mentioned to you, that the great advantage which we have in London, is the number of eminent and highly scientific and well-informed men, with whom we have occasionally an opportunity of consulting, and I take advantage of that circumstance now. In a conversation with that deservedly eminent surgeon, Mr. Copeland, he told me that he has on several occasions destroyed the loose cartilage without the necessity of opening the joint; and the manner of doing it is to push up the loose body into the corner of the reflected capsule on the inside of the knee-joint, for example; and having got it there, to fix it. The manner is this: a ring is put on the prominence which marks the place of the cartilage; then a compress, adhesive strap, and finally a bandage. By this means the loose cartilage is fixed, and in time adheres; after which it is absorbed, or dissipated. I am quite sure, that if you remember the effects of a puncture of the knee-joint, whether accidental or done with all the care of the surgeon, and the destructive inflammation

that sometimes arises from it, the violence of the suffering, and it may be the loss of the limb or of the life, you will be grateful for this exercise of ingenuity and of successful practice.

I will now advert to the case of *Hydrops Articuli.* — "Mary Haller, æt. 26, admitted November 18th. She observed a swelling of the knee a year ago, but had no pain in the swelling. She fomented the joint, gave it rest, and had it bound up; and in a week the swelling went down. Three months ago, the knee began to swell again; she bound it up, and the swelling disappeared. Three weeks ago it again began to swell. On her admission into the hospital the knee was puffy and swollen, chiefly above the patella. When the tendon of the quadriceps was pressed upon, the patella was raised up. There was no pain, except on going up stairs, and the knee was but little bent. The ankle was formerly similarly affected, but got well by bandaging. She was ordered a draught, with a grain of quinine and of sulphate of iron, with infusion of orange-peel; the knee to be surrounded with slips of lint, spread with ung. hydriod. potassæ, and rolled from the foot. In a few days the swelling almost entirely disappeared."

Now this case brings us to reflect on the synovial secretion; and the first remark that I must make, I think may be of use to you hereafter; and I also think that the subject is too little adverted to in practical books — viz. that a slight inflammation of the synovial membrane will cause, we will not say the absorption of synovia, but a defect of the secretion of the synovia. The consequence of this deficient secretion is, that the joint, as it were, jars upon the hinge; the two surfaces of the cartilage come into such perfect contact that there is a jar, or crepitus, and very often, after certain injuries, the practitioner believes that he has got a fracture, attended with distinct crepitus, when it is only the motion of the two cartilaginous surfaces upon each other, consequent upon their being no synovia in the joint, that produces the sound.

The next observation I would make is, that in dropsy of the joint, as it is called, the attack may have been inflammatory at first — that is to say, a copious secretion is thrown out in the second stage of inflammation; it may be therefore true that this effusion is a product of inflammation, and yet the case does not require the decided practice that inflammation of the synovial membrane demands.

From time to time I have put some of your hands upon

the knee-joint, and bade you notice how little difficulty there is in ascertaining that the fluid is not only in the proper joint, but also under the tendons inserted into the patella. You will find, when there is any considerable accumulation of fluid in the knee-joint, that if you grasp the lower part of the thigh, and compress the great bursa there which communicates with the joint, you will then force up the capsule, raise the patella from the femur, and be able, by tapping upon the patella, to ascertain that it has so risen. This was particularly the case with this young woman.

Will you remember, too, that there is something in the natural structure of the joint that is very apt to deceive you? If a practitioner has forgotten the demonstrations that he had at lecture, he is very apt to conceive that there is a puffy swelling of the knee-joint, when there is nothing more than the natural fat of the joint projecting on each side of the ligaments of the patella. Remember that the interstices between the convexity of the femur and the head of the tibia are filled up with fatty appendages attached to the ligaments, and that these fatty appendages projecting on each side of the ligament of the patella, produce an appearance of puffiness. In order to fix this upon the mind, I will tell you a little circumstance. One of the heads of the profession, whose name is more frequent in your mouths than any other, and most deservedly so, had a very handsome sister-in-law. It happened that a young gentlemen fell desperately in love with this young lady, and he took it into his head, that if he could get introduced to the brother-in-law, he might have an opportunity of seeing the young lady, who had taken his fancy in the ball-room. He went to him, being in perfect health, complaining of excessive pain in the knee-joint; and this gentleman, examining the joint, and tapping all around it, said, "Yes, there is puffiness on each side of the ligaments of the patella, and this puffiness being there, and the violent pain described, it is my duty to see that it is immediately attended to. I shall send one of my young gentlemen home with you, and let sixteen leeches be immediately applied." A friend of the suffering gentleman had an opportunity of telling this to the young lady, and she was highly excited and delighted until it came to the *denoûement* — which was this, that when these leeches were applied, and the bleeding had become very profuse, he got very faint and sick, and never could think of the young lady again. So far he was wrong, and a fool at the end, as he was

at the beginning. But you see it is possible, by the complaint of the patient, to be so far led from your just conception of the matter, as to take the natural fulness of the joint for puffiness or effusion.

How is the case of dropsy of the joint to be treated? In the first place, by fomentations with solution of the muriate of ammonia, with mercurial friction, with the ung. hydroid. potassæ, which in the case that has been read seems to have had a happy effect; blisters, alternately on one side and the other, and the blistered surface dressed with blue ointment. These, then, are the external means; but you must remember that the disease arises from a constitutional source: because I do assure you that I have found the complaint almost in every joint — in the shoulder, the wrist, both wrists, both ankles, and both knees. So that there can be no doubt that in these cases it was not a direct influence of injury to the joint that produced the swelling, but a very strong prevailing disposition in the system, which you must endeavor to counteract.

The first object, as I think I must have said before, is to correct the secretions and watch and order the bowels, since, without proper digestion and assimilation, there is neither health nor constitutional strength. There is a fashion at present of giving the blue pill, in doses of two grains, twice a day. This, with a course of sarsaparilla, proves often the means of correcting the disordered state of constitution. What you see me most partial to in the strumous cases, is the liquor potassæ with bitters, or the carbonate of potash. It was with the idea of this young woman's state of constitution depending on chlorosis, that she had the sulphate of iron and sulphate of quinine in bitter infusion.

There is another practical point. I see it recommended that you should puncture the joint with a fine instrument. Now this appears to me quite out of the question; because the case does not require it. If you put down a bit of lint, dipped in spirituous solution of any kind, on the sides of the joint, filling up the irregularities, and then apply a roller skilfully, in twenty-four hours the fluid will be gone; and, as we say, we excite the absorbents. Whether we excite the absorbents or prevent the secretion, is practically of little consequence; but it is of consequence that we should be aware of what a puncture of the capsule may produce, and that puncturing it in such a case as this is not at all necessary. There is no difficulty in emptying the joints by the absorbents; the

difficulty is to counteract the disposition to its return. When therefore, the case is cured by puncture, there must be something more than the evacuation of the fluid; an action upon the surface of the synovial membrane must have been induced; and I may be excused for entertaining apprehensions of more violent inflammation arising.

White Swelling. — "Francis Phillips, æt. 15, was admitted May 29th, with a scrofulous knee. Ten years years ago he is said to have fallen down; the knee was swelled, and he was an out-patient here for two years. He went out upon crutches, and used them a year and a half: he then lived in the country. At the end of that time he left off crutches, and could run about; the knee, however, still continued swelled, but without pain. Two years ago he fell, and the knee bent under him; in consequence of which he was laid up for six weeks. A year and a half ago he had rubeola and scarlatina; since that time the knee has been occasionally subject to pain, and weaker than formerly. In the spring of this year it got worse, after a long walk; an abscess formed in the ham, and burst. Soon after this, his health became bad, and he was admitted into the hospital. The knee was then considerably enlarged, the surface round, uniform, and white, with blue veins upon the surface, and the limb somewhat bent. Abscesses formed on each side of the patella, which were opened; the openings closed, but have re-opened of themselves several times, after fresh attacks of cold and rigors. The opening in the ham has always continued more or less open from the time of his admission. He has been treated with light tonics, leeches, blisters, issues, &c. He gets a little better, and then a fresh cold throws him back again."

Now as to the name *white swelling*, it is objected to. If you please reject it; but at least understand the meaning of it. It is impossible that you could have gone round the hospital with me this morning without seeing that there are some diseased joints with, and others without, discoloration; and taking up the subject practically, one would at once say, we will arrange these joints in two classes, and call those not at all discolored *white swelling*. When the joint is affected externally to the capsule you have the usual character of inflammation. In these several instances, which you have seen of the housemaid's knee, where the outward bursa in front of the patella becomes the seat of inflammation, discoloration attends the swelling; but when there is the more formidable disease of

the synovial membrane and cartilage, the scrofulous disease which comes upon these internal parts in the first stage of the disease, there is a very peculiar swelling, one that you must especially notice, and it is without color, that is to say, the joint is tumid, round, and pale, and as in the case "with some blue veins upon it." You would at once distinguish this by the very term which has been long in use, that is, *white swelling*, the other affection being attended with discoloration.

You are aware that internal disease every where produces the same effect. Suppose a man has disease of the antrum highmorianum, there is a great swelling of the face but no inflammatory discoloration; suppose a man has disease of the frontal sinuses, there is a large swelling but it is colorless; it is a swelling sympathetic with the action within — it is not in itself the seat of disease. Now this is exactly what takes place in the scrofulous disease commencing within the knee-joint; it is a *white swelling*.

What is the history of the case? The white swelling sometimes comes so distinctly and obviously from constitutional influence, that you find no blow, no sprain, nor wound of any kind, and that of course is unfavorable, as it implies that you will have more constitutional peculiarity to encounter in your cure. But on other occasions the disease takes its rise from local injury. I believe there is one case in the book which shows that a strain of the inner lateral ligament of the knee will degenerate into white swelling; and we know that a blow from a stone, which hurts the membrane by bruising it against the surface of the bone, will do the same. There can be no doubt, I conceive, taking the matter up practically, that a white swelling does sometimes begin in the cartilage; but in other cases it forms in the synovial membrane, or in the tendons and apparatus of the joint.

What is the progress of the complaint? Were I lazily inclined, I would say, read the cases in the book, or refer to what you have seen this morning; for in these fifteen cases you have all the features of the disease. However, let us run them over. There is deep seated pain; this is always very alarming when the constitutional character, struma, prevails. Following this general pain there is swelling, and such as would lead us to believe that there was an enlargement of the bone. I see it is put down in one of the cases, that the bones are enlarged. I am old enough to recollect when that was the very word used in determining the consulting sur-

geons as to the propriety of the operation of amputation. They would say, "The bone is enlarged; there is no hope here." Now the fact is, it is another disease altogether in which the bones are enlarged, and when this occurs, it may even give hope of anchylosis and cure. But it is a deception to believe that the bones are enlarged in white swelling, and it is an appearance peculiar to the disease. The swelling takes place externally to the capsule; the effusion does not escape, on pressure, like œdema, the cells are distended with fluid, and sometimes they give such firmness and resistance, that you would actually believe the heads of the tibia and femur were enlarged one third of their diameter, whereas, when the limb is taken off and the integuments dissected, the bones are not a whit larger than natural.

The next thing that takes place is the contraction of the limb; and I should like to hear some of you explain this occurrence. It certainly marks as distinctly as the index of a clock the degree and progress of the inflammation. This contraction produces a good deal of apparent enlargement, from the new position of the bone: for the projection of the head of the femur adds greatly to the appearance of actual enlargement. This contraction will go on till the head of the tibia is altogether drawn behind the head of the femur; and I have made dissections where this bone was altogether pulled back and dislocated. I cannot at this moment state the reason why this should be, but I know it is most important that you should observe it. If I see a girl complaining of pain with her limb extended, I say the inflammation is external to the capsule; if I see another with her limb drawn up, I say the disease is more formidable and within the capsule. Always remember (and the review of this morning may tell you), that there is a contraction of the joint dependent upon hysterical affection. I have dwelt upon this from time to time, and I therefore now simply notice, that there is pain and contraction which all of a sudden gives way, like the other symptoms of hysteria. So there may be contraction from rheumatic inflammation in the muscles, and inflammation of the tendons and thecæ; but I am speaking here of contraction from diseases of the joint itself.

The next thing that marks a white swelling, and indeed it is then no longer a white swelling, is the formation of a succession of abscesses. The violence of the inflammation within produces an abscess in the cellular membrane without, and

that abscess in time forms a communication with the joint; for I beg to state, that both here and in the hip-joint, in the early stage, there is no necessary communication between the joint and the abscess. These abscesses forming, and going through their regular processes and discharging, the appearances are more favorable; but then comes on a new accession of pain and fever, and new suppurations form and discharge, and become sinuses, so that a chain of abscesses goes round the whole joint, each successive abscess marked by a paroxysm of pain and inflammation, the regular return of which is one of the peculiarities of true white swelling. You will observe in the case, that the friends state that he was thrown back by fresh colds. But that which they attribute to cold was the returning paroxysms of fever which atttend the disease, and which sometimes attack the patient with surprising regularity. It is this fever which exhausts the patient, and comes to be an important consideration in the question of amputation.

But you naturally say, that the essential point is here omitted; what is doing in all these several cases. If I must mark certain things to be done under the head of cure, I would say, in the first place, the warm douche is advisable when disease of the joint is threatened, such as the frequent pouring of warm salt water on the limb from a height; after which, let the joint be dried and rubbed well; an anodyne liniment may be used, and a flannel roller applied; a salt-water poultice is sometimes a good application. The next thing is a practice which you have seen to day, dabbing or spotting with blisters. In this disease leeches are to be applied but sparingly; but when you apply a blister, the excitement will extend further inward than you intend, unless you have preceded or accompanied it with leeches. But what I conceive to be much better is this dabbing it with a small blister, applied in succession to different parts of the surface, a fresh blister being put on every third day, so that the whole surface is kept in a state of excitement, without there being at any one time much violent imflammation produced. Moxa may then be applied, or kali purum, making two very small sloughs to day and two to-morrow, thus keeping the whole surface by this mode in a state of activity. When the violence of the symptoms is subdued, you have seen the method of dressing; surrounding the joint with slips of lint, spread with the extract of conium, or the emplastrum thuris and mercurial ointment, or the ung. hydroidatis potassæ. Small slips should be put

over and over and across every part of the joint, then a bit of oiled silk, plenty of cotton wadding, and over that a roller. When we have got over the violence of the disease, I believe this is a most excellent practice; that is, keeping the limb perfectly still, and attending, at the same time, to the constitutional peculiarities of the patient. As to the general constitutional symptoms, they may be combated by sponging with warm salt-water or the use of the warm salt bath. As I said, I much prefer the liq. potassæ, the bark infusion, bark with mineral acids or steel; in a young patient, the vinum ferri, soda, rhubarb, and precipitate of iron, and, lastly, iodine. This practice, generally speaking, is what you will find pursued in the wards at the present moment. The last point upon which I shall address you, is on the question of amputation in this most formidable disease of the knee-joint. I do think there is too great a disposition to lop off limbs. It is certainly no great credit to the profession that we have recourse to this so frequently and so readily; however, there are cases in which we must do it. When the disease is irritating the general constitution, so that there is continual hectic fever, night sweats, and wasting or diarrhœa — when in short, the local irritation becomes so powerful upon the general constitution, that you are in danger of losing your patient, it becomes then a duty to amputate. Even when this is not the case, amputation may be proper, as when the joint is destroyed, the tibia twisted and drawn back from the head of the femur, the thigh and leg wasted: in short, when the whole condition of the limb is such, that if you could say, "To-morrow the disease will terminate," yet that limb would be an incumbrance. Since it would be much more in the way than a wooden leg, why attempt to preserve it at a certain hazard to life? If, then, this be the case, and at the same time the young person is hindered from all education, all hope of providing for himself, and he is teased and wearied with this continual complaint, although life be not in immediate danger, I conceive that we are bound to recommend the operation. But so long as there is any hope of the limb becoming stiff, and the bones uniting by anchylosis, I do not conceive that we are authorized to give such advice.

The meaning of all this discourse is to entreat you, for your own sakes, to keep a sharp eye on all these cases of disease of the joints. You have no apology for not attending to them;

and you must consider it as an expression of my friendly anxiety concerning you, that I take this opportunity of recommending you to do so.

ORIGINAL ARTICLES.

Art. I. — Tuberculous Degeneration of the Bronchial Glands — Death from compression of the Trachea.

[*Read before the Boston Society for Medical Improvement, March 10th,* 1834.]

By Ezra Palmer, Jr., M. D.

The respiratory apparatus, in like manner with all the other parts of the body, has its lymphatic vessels. "These vessels are disseminated through the whole tissue of the lungs, follow the divisions of the veins, communicate with the twigs which are superficial, with which they at length entirely unite in the bronchial ganglia, whence both emerge to ascend upon the bronchi, as far as the trachea; there they meet with new ganglia, divide in them, and more particularly in one of them which occupies the angle formed by the bifurcation of the trachea."*

These ganglia, or as they are generally termed "bronchial glands," are small organs variable both in form and size; in form, however, generally tending to a round one, and in size generally varying from the tenth of a line in diameter to the size of a hazle-nut. They are oftentimes so small that we can with difficulty discover them, and they cannot sometimes be seen until developed by disease. These ganglia are thus organized: the cellular tissue in which they are imbedded, forms around them a thick membrane, which immediately envelopes them, and which, deprived of fat and serum, gives to the ganglia a smooth and glistening appearance; their internal structure is that of a pulp, very similar to that of the nervous ganglions. These bodies have a black appearance, which in a measure is an attribute of their structure, but in part is de-

* Meckel.

rived from the color of the fluid present in them. Chemists have imputed this color to the presence of the carbonaceous matter of the blood." *

These ganglia, like the rest of the animal economy, are not exempt from disease. That inflammation attacks them is inferred from the liability of lymphatic ganglia in other parts of the body to that affection. We readily recur to the inflammatory swellings of the lymphatic ganglia in the groin and axilla, when influenced by substances that have been conveyed to them by the absorbents.

From their identity with lymphatic ganglia in other regions of the body, and from observation of the progress of inflammation in lymphatic glands elsewhere situated, we infer that the progress of inflammation in these bodies is slower than in many other textures of the system: also that the pain which occupies these glands when inflamed, is less acute, and less distinct: their suppuration less readily established, and their texture more disposed to hardening after inflammation. Such is probably the case in pure inflammation. Of scrofulous inflammation of these bodies, we can speak with more certainty, for we too frequently have opportunities of witnessing the progressive changes produced in them by this affection. The first change produced by scrofula in one of these ganglia is probably an *increase of size*. This change is often made visible upon the surface of the body, where scrofula, by its enlarging power, shows us lymphatic glands in places where we did not know that they existed: especially on certain parts of the face and neck. The next change is probably *a transformation of the pulp of the gland to a fatty and white substance;* ganglia in this stage, are occasionally divided on cutting into the substance of the lung in the vicinity of the bronchi or trachea; they are also found immediately attached to the trachea, or to one of the bronchi. The third change is probably a transformation of this white fatty substance to *caseous pus*. On inspecting the body of a scrofulous person, whose bronchial glands are generally enlarged, in addition to many of those bodies containing a white fatty substance, we occasionally find several which contain this cheesy pus. The gland may be of the size of a large walnut. A thick membrane immediately envelopes it, or more correctly, is the

*Bichat, passim.

outer layer of the gland itself, and exactly resembles a sac, or the secreting membrane of a wen.

Having mentioned the locality where these bodies are most numerously found, and having alluded to some changes to which they are liable, I would ask, if when changed by disease, they may not be occasionally the cause of death? If they are ever the cause of death, would the accompanying symptoms be conclusive?

The opinion that the bronchial glands, when changed by disease, may produce death, I am disposed to believe, a reasonable one. This result may ensue in several ways. One or more of these bodies may, from a gradual increase in size, at length become sufficiently large to compress to their injury, important parts in their vicinity. A slight compression of the trachea, would so diminish its calibre, as to interfere with the balance of respiration. Again, a less degree of enlargement, with an engorged condition of the lungs, might produce a similar result. Or on account of the loose and extensible condition of the cellular membrane, which surrounds them, a displacement, whereby they would occupy a more injurious situation, might produce death. This latter result, however, could only occur at an early period of their disorganization, for their surrounding cellular texture, by degrees, participates in the inflammatory excitement, parts with its natural looseness of structure, and then a fixedness of the gland exists in place of its former mobility.

That either of these conditions may induce fatal consequences, I have no doubt; but for the most part, when death is in any degree the result of their agency, I presume the issue is as follows: an individual has dyspnœa, this dyspnœa is produced by the compression of the trachea or bronchi by one or more of these enlarged ganglia: he is not prevented from attending to his daily duties, if an adult, nor from his sports, if a child; there is no general inflammatory excitement, no fever, no loss of appetite; the act of respiration is performed as if some mechanical obstruction existed to the entrance of air into the lungs; this obstruction is incessant; in this manner the individual lives until some comparatively slight cause, as mental emotion, catarrh, or the very incipient step of inflammation of the lungs, or pleura, or perhaps some cause still slighter which may have demanded of the lung, but a small increase of labor, is superadded, and then death speedily ensues. The extreme suddenness of the event surprises the medical attendant. Death has occurred long before inflammation has

rendered the diseased portion of the lung (if pneumonitis has been the superadded affection) impervious to the air. Surprise continues, until by an examination of the thorax, it is discovered that the calibre of the trachea or of the bronchi, has been encroached upon by one or more enlarged bronchial ganglia.

Since death may be thus occasioned, would the accompanying symptoms be conclusive? Would they indicate the cause of the mischief?

The symptoms accompanying this affection are; 1st, *impeded respiration*, caused apparently by some mechanical obstruction, which prevents the entrance of the usual and necessary quantity of air into the lungs. But this symptom, present in the case supposed, where the obstacle is external to the trachea, also exists when foreign bodies have entered the aperture of the glottis.

Another symptom is *stupor*. When respiration is impeded, the blood which passes through the pulmonary vessels, no longer receives the influence from oxygen to which it is accustomed, and the circulating fluid approaches to the character of venous blood. The brain soon feels the want of the florid arterial stream, by which alone its energies can be maintained, and stupor supervenes.

Another symptom is a *mucous rattle*. This must arise, whenever the energy of the nervous system is diminished: for then the numberless sympathetic connections of the system are severed. The relations between those organs, whose functions neutralize each other, are terminated. Absorption ceases to counterbalance exhalation. In this case, the mucus of the lungs is deposited more rapidly than it is removed; an accumulation takes place, and we have a mucous rattle.

The two last mentioned symptoms are both the consequents and the results of the impeded respiration; and they, like it, are far from being peculiar to this affection. The order of their occurrence might possibly lead us to suspect the cause of the mischief, and discriminate between it and other affections with which it might be confounded. The same order however would exist in suffocation from the entrance of a foreign body into the aperture of the glottis; but then death in the latter case, would probably ensue more speedily; for instance, "an individual in the midst of a festival, went into a neighboring room, but did not return, to the great surprise of his convivial friends. He was found stretched on a couch, without any signs of life. The assistance administered by his

friends was useless; on opening the body, a piece of meat was found, that had stopped at the entrance of the larynx, and completely prevented the passage of air into this organ." * Such a rapidity as this in the termination of life, in addition to the probable absence of previous dyspnœa, would hardly be expected in the case supposed, and I think would lead one to discriminate between the two cases.

The three symptoms enumerated, occurring in the order specified, I consider the characteristics of this affection. It is true that individually they are united to other diseases; but their combination, and the order of their occurrence, observed in announcing them, are probably peculiar to this affection and cases of suffocation. The difference between this affection and a case of suffocation consists in the preceding and accompanying circumstances peculiar to each, and in the rapidity of the approach of death, as above-mentioned, in the latter.

When complicated, as I have supposed this affection most generally to be, when the fatal aggravation occurs, with catarrh or the incipient formative stage of pneumonitis, or pleuritis, to the symptoms mentioned, will be added, the peculiar symptoms of the accompanying disease.

This affection might be confounded with laryngitis and croup. From the former, it may be distinguished by the absence of all difficulty in deglutition; from the latter, by the absence of the peculiar ringing cough and stridulous respiration so peculiar to croup.

This affection may be still farther elucidated by the narration of a case that came under my observation in 1832; I cite the case as written at the time. M. A. J., aged three and a half years — has always breathed with difficulty — been called by parents a phthisicky child — was seen for the first time at eleven o'clock on the morning of June 27th — ascertained that the child retired the evening previous as well as usual — the countenance was anxious — pulse rapid — mind sane — questions were answered rather heavily — patient somewhat drowsy, but easily roused — the prominent symptom was impeded respiration, as if some obstacle existed to the admission of air into the lungs; this, from the mucous rattle, which was unpleasantly loud, was supposed to arise from an unusual accumulation of mucus in the trachea and bronchi; but why

* Paris.

there should be this accumulation, could not be determined; for no perceptible inflammatory action preceded the attack, nor did unequivocal inflammation accompany it. No cough existed — tongue clean. The child was covered by a profuse perspiration, which was supposed to be the result of labor attending the inhalation of air — the peculiarities of croup were absent.

7 o'clock, P. M. — Treatment had produced no relief — aggravation of all the symptoms — great stupor — pulse weak and small — body still covered with profuse perspiration — breathing extremely laborious.

At half past nine the symptoms were still farther aggravated. Death took place at 11 o'clock.

An examination, eleven hours after death, proved that the morbid appearances were confined to the vicinity of the trachea.

Six or eight bronchial glands of an oval figure, varying in size from two eighths to five eighths of an inch in their longest diameter, were attached at and about the bifurcation of the trachea. One of them contained cheesy pus.

Another bronchial gland, besides the above, and by far the most conspicuous, its length being one inch and a half, and its breadth one inch and a quarter, was firmly attached to the front of the trachea, whose calibre it had reduced by compression to one third of its original capacity. The contents of this enlarged glandular body were cheesy pus.

The lungs were engorged with blood.

The diseased glands, with a portion of the trachea and bronchi, to which they are attached, I have at present in my possession.

Although comparatively little attention has been bestowed upon the subject of the foregoing paper, it is of much practical importance. In relation to the prevalence of tuberculous disease in early life, recent observation has demonstrated; 1st. That the mortality from this cause is far greater than is generally imagined; 2d. That of all organs of the body, the bronchial glands are most frequently the seat of this morbid degeneration. Thus M. Guersent, a physician attached to the Hôpital des Enfans Malades in Paris, where none are admitted below the first nor above the sixteenth year, states that five sixths of those who die in that establishment are more or less tuberculous; and M. Papavoine found tuberculous bronchial

glands in forty-nine of fifty post mortem examinations of children, made with a view of determining the relative frequency of tubercles in various organs.

The most interesting and complete outline of this affection we have yet met with is a translation from the French of a "Prize Essay on Tuberculous Disease of the Bronchial Glands, by J. M. Berton," published in the Dublin Journal of Medical and Chemical Science for March. We shall at present notice only one portion of this Essay, reserving the remainder for future consideration. After observing that Läennec's opinion, "that inflammation of these glands is rare," may be true relatively, but not absolutely, and remarking upon the peculiar liability of infants to bronchial phthisis, the causes which produce it, and the appearance of these bodies when inflamed, the author inquires, "What are the symptoms of bronchial phthisis? If in reply to this question we consulted only our imagination, or ideas already sent forth to the world, and recalled to mind the seat which the bronchial ganglions occupy, the parts with which they are surrounded, and the enormous volume which these glands sometimes acquire, the idea of compression would not fail to present itself to the mind. What a number of remarkable phenomena might not this imaginary cause give rise to. In fact, I had figured to myself that the bronchial ganglia, and the different lymphatic glands of the thorax ought, in certain cases of tuberculous developement, to compress some of the large vessels near their origin; that from this impediment offered to the course of the blood should spring up dilatations, hypertrophies of the centre of the circulation, &c. &c." If such were the pre-conceived opinions of the author, facts prove them unfounded. Two cases are related, in which, though tuberculous glands existed to a great extent, yet no large vessels were compressed. "It would be useless to cite at length" he continues, "other observations in which the lymphatic glands of the bronchi, those situated on the sides of the vertebral column, those of the mediastinum, the gastro-hepatic and gastro-splenic glands were entirely degenerated, and had acquired a considerable volume without any impediment to the circulation."

"Research has convinced me in like manner, that tuberculous and hypertrophied bronchial glands cannot compress so as to flatten the bronchial tubes; and that consequently dilatation of the bronchial ramifications (in other respects frequent in children) can be looked on only as the secondary effect of

this pretended compression, which itself cannot be announced either by any particular whistling sound or by interrupted respiration."

Again, "bronchial tubercles may acquire a considerable volume (that of a small hen's egg for example) without producing (on account of their respective situation), the least displacement around them. But the extraordinary developement of some of these organs may however occasion in certain cases the retreat of the neighboring parts, when the mobility of these parts allows it."

If, as appears from the passages above quoted, the author means to assert that scrofulous enlargement of the bronchial ganglions never produces inconvenience or death by compressing the trachea or primary bronchial tubes, we differ decidedly from him. In addition to the case related by Dr. Palmer, in which the flattening from pressure upon the trachea, was, and still is, perfectly evident, a similar instance in a younger subject came under the writer's personal observation. The patient, an infant of six months, (whose mother was far advanced in tubercular phthisis) had difficulty of breathing from its birth; from some cause this became suddenly aggravated, and without manifesting any symptoms which could be distinctly referred to pulmonic disease, it died. Dissection discovered enlargement of the bronchial glands, some of them to the size of a walnut, without softening. At the bifurcation of the trachea, an enlarged ganglion pressed directly upon the right bronchus, evidently diminishing its capacity. These two cases are in direct contradiction to Berton's opinion. We are also supported by Andral upon this point. "The lymphatic ganglions" he observes, "when once they have become diseased, may derange the structure or functions of the surrounding parts, either by the irritation they communicate, or the mechanical pressure they exert. In the chest, for instance, the bronchial ganglions sometimes compress the bronchi so far as to impede the passage of air into the lungs." *

Dr. Carswell also in the following passage of his admirable article on "Tubercle," in the Cyclopedia of Practical Medicine, admits the occurrence of compression. "A diminution of the capacity of the bronchi is not unfrequently produced by the presence of tubercular matter situated external to these tubes. We have met with several examples in children, of compres-

* Pathological Anatomy, Vol. II., page 284.

sion of the large bronchi, which was the obvious cause of the difficult breathing observed during life. The tuberculous enlargement of the bronchial glands has appeared to us the sole cause of this change in the capacity of the large bronchi, and in some instances the difficulty of breathing which they occasion by compressing one or both divisions of the trachea is very great. Such cases puzzle the physician extremely; for a clear sound may be elicited by percussion from every part of the chest, and by means of the stethescope the respiratory murmur may be distinctly heard, although feeble, throughout the whole of both lungs. Being unable to discover the existence of any organic lesion of these organs, the nature of the disease and the cause of the chief symptom equally escape his researches, and the patient is treated for asthma or angina pectoris. Judging therefore from our own experience, and from the fact already noticed, viz. the great frequency of tuberculous disease of the bronchial glands in children, and particularly at the origin of the bronchi, we should not hesitate to give it as our opinion, that if a patient of four, six, or ten years of age were affected with considerable difficulty of breathing, without any lesion of the lungs or other obvious cause capable of giving rise to this modification of the function of respiration, such a patient had tuberculous disease of the bronchial glands, with compression of the bronchi near the bifurcation of the trachea. When we consider the frequency and extent of tuberculous disease of the bronchial glands, it is surprising that the large bronchi are not found more frequently compressed than they are, and that cases should not have occurred even of their obliteration. The only case of the latter kind we have seen (and so far as we know, there is no similar case on record,) occurred in a monkey, which, from its singularity, and the possibility of its occurrence in the human species, deserves to be noticed in this place. A group of bronchial glands in the form of a round tumor about the size of a chesnut, very firm, and entirely composed of tuberculous matter, surrounded the left division of trachea, the walls of which were so compressed as to prevent the passage of the air through it. A section carried through the middle of the diseased bronchial glands exposed the left bronchi lodged in the centre of the tumor formed by these bodies, in the form of a narrow band, the opposite surfaces of its mucous membrane being brought into immediate contact. The corresponding lung was greatly diminished in bulk, and devoid of air, such

in fact as it is found in the case of extensive effusion into the pleura. But this cavity presented no trace of effusion of any kind, adhesion, or other morbid state. The left side of the chest was, however, contracted as it is observed to be after the cure of chronic pleurisy. From the striking resemblance between the physical signs of a case of this kind, and those to which the cure of chronic pleurisy give rise, it would certainly be difficult even for the best practical pathologist to distinguish the one from the other." This case is also spoken of by Andral as exhibited to him by M. Reynaud.

It would be interesting to pursue this subject farther, but our limits have already been exceeded. The effects produced by displacement or compression of nerves from this cause, are worth attending to. Some ingenious papers by Dr. Ley "*On the Crowing Inspiration of Children and its Connexion with a Morbid Condition of the Thoracic or Cervical Glands,*" bearing upon this point, may be found in the second volume of the London Medical Gazette for 1834. J. R.

Art. II. — Case of violent convulsions consequent upon parturition.

By Edward Warren, M. D.

[Communicated for the Medical Magazine.]

The following case may serve to illustrate the remark that the easiest labors are not always those which are attended with least danger.

On the second of February, I was called to Mrs. ——, whom I had visited some weeks previously on account of an attack of influenza, and who had engaged me to attend her in her confinement. She was a thin, small woman, of apparently delicate health, and feeble constitution. I saw her at twelve o'clock, and found she had just removed from one house to another, and had herself superintended and assisted in the removal of her furniture. When I arrived, she was standing at her bureau quietly arranging the clothes in her drawers. This employment she pursued during the half hour that I remained in the room, interrupted only by the time I occupied in examination. During this period she informed

me she had had several pains, though they had not attracted any notice, and that she expected to be confined in about two hours. On examination, I found the external organs plentifully lubricated with mucus, the neck of the uterus obliterated, and the presentation natural. After the examination she continued standing at her bureau, or sitting in her chair, until half past one, when the pains becoming more severe, she laid down on the bed. The child was born, a good sized, healthy girl, and the placenta delivered before two o'clock.

The afterpains were slight, and there were no unfavorable symptoms, until Friday, Feb. 6th, when she was so well that I considered my attendance terminated. On Saturday, about two P. M., I was called in great haste, and found her in violent convulsions. I learned that she had been quite well all the preceding day, and in the evening had, for the first time since her confinement, mentioned her husband, who was intemperate and had been to her a constant subject of anxiety. She was nevertheless perfectly cheerful, and on Saturday appeared still better both in health and spirits, until the very time when the convulsions occurred. About twelve or one o'clock, her earnest entreaties had prevailed on the nurse to allow her a piece of apple pie.

I immediately gave a scruple of ipecacuanha with ten grains of calomel; and this I repeated at intervals of ten minutes until she had taken a drachm of the former. In the meantime, I directed the head to be rubbed with strong tincture of cantharides and a large mustard poultice to be applied to the bowels. At the same time, I administered an enema prepared with an ounce of sulphate of magnesia to a pint and a half of soap and water, being the readiest materials that presented themselves. The state of the pulse and the slender habit of the patient deterred me from venesection at the outset.

The paroxysms, however, increased in force, notwithstanding the applications, and all other means proving ineffectual I determined to restore the equality of the circulation by bloodletting. I opened a vein in the arm by a free incision, the blood flowed rapidly, and I took away twenty four ounces. During the operation, the paroxysms became more violent, the countenance perfectly black, and presented the appearance of a cholera patient in the stage of collapse, or a corpse which has laid some weeks in the grave. The fits were attended with chattering, and the muscles of the face were drawn to one side, so as to imitate exactly the grimaces and noise

uttered by an ape when beaten. Between the paroxysms, she sunk into a state of exhaustion, almost of collapse.

I now informed the friends that I considered her danger extreme, and at my request, Dr. Doane, her brother's family physician was called in consultation. He considered her case almost desperate, and thought that the only favorable prognostic was to be derived from the information given us by the friends, that her preceding confinement had been succeeded by convulsions nearly as violent as the present, occurring like these, on the fifth day after delivery.

Soon after the venesection, however, her face became somewhat less livid, and in about an hour had nearly resumed its natural color; she made some attempts to vomit, upon which I immediately repeated the emetic. Her appearance now was so much improved, that I considered it safe to leave her for a short time in charge of the nurse, directing the head to be rubbed with tincture of cantharides, and a tea-cup full of a strong decoction of senna with sulphate of magnesia to be given every half hour.

On returning two hours after, at eight, P. M., I found the emetic had operated freely, and she had had but one paroxysm in my absence, which was less violent than the preceding. I repeated the injection, and directed the senna and salts to be continued as before, until a cathartic operation was obtained: — fresh mustard poultices to be applied to the bowels and to the feet.

Feb. 8th. The emetic operated again powerfully after I saw her, and soon after she had a discharge from her bowels. No recurrence of the paroxysms, and remainder of the night tranquil. This morning her countenance is calm, but she is delirious.

Apply six European leeches to each temple. Let her take a table-spoonful of castor oil.

Feb. 9th. Requested to visit her this afternoon, as she has been very violent. The leeches have just been applied, have produced free bleeding, and she is now calmer. Oil has not operated.

Repeat the oil. Take ten grains of Dover's powder, and repeat in two hours. Afterwards, if required, a pill of one grain of opium every hour until sleep, or until she has taken three pills.

Feb. 10th. Took all the powders and pills, but obtained no sleep. Appears much as yesterday, but is not violent.

Let her take one ounce of sulphate of magnesia.

Feb. 11th. Salts operated once. Calm throughout the day; slept well at night. Is now much more rational, but says her head is not settled.

From this time she rapidly improved in health of mind and body, and on the 14th was so well as to require no more attendance.

The remarkable circumstances in this case were the great ease and short duration of labor, — the occurrence of the convulsions both in this and her preceding confinement on the fifth day after delivery, — and the severity and long continuance of the paroxysms. Mrs. —— has had four children previously, all or most of whom are now living, and her labors have usually been easy. The occurrence of the convulsions in the former case were attributed to anxiety of mind, and the mental derangement continued in that case for a much longer period than in this. She had suffered much from the same cause previous to her recent confinement, and it is probably to this, as well as to the error in diet, that the convulsions should be attributed.

Boston, April, 1835.

COLLECTANEA.

Rupture of Viscera in the Cavities of the Body, without external appearance of lesion. By M. Rognetta. — During the summer of 1831, one day as M. Boyer was paying his visit at La Charité, a young mason was brought in, who had just fallen from a scaffold. He had breakfasted shortly before. His aspect showed extreme anxiety; he was as pale as death; his pulse filiform. In half an hour he expired, having had nothing done for him in the hospital except being laid in bed. No mark of external injury was observed on the body, except a large ecchymosis on the epigastric region, betokening a bruise of that part.

At the *post-mortem* examination, on opening the abdomen there was found on the intestinal mass a great quantity of fæcal matter; it had made its way through a rupture of the transverse colon, which still contained a considerable quantity of the same substance. The opening in the gut was as smooth as if it had

been made with a knife, and ran round nearly the whole calibre of the colon. All the other organs of the deceased were healthy; nor did there appear to be any thing unsound about the intestine which had given way. M. Boyer said that this was the second case he had seen of rupture of the great intestine from contusion, without any breach of continuity on the external parietes.

I took a note of this case at the time, as I thought it remarkable; but within the last few months another example has fallen in my way, which may, perhaps, be considered as still more curious and interesting. This was a case of laceration of the liver, without any rupture of the abdomen.

In September last, while M. Guersent, *fils*, did the duty of M. Roux at La Charité, a young man, 21 years of age, was taken in, laboring under the effects of bruises which he had received from the wheel of a carriage that had just passed over his body. The patient was the *conducteur* of one of those vehicles called *coucous*, and had fallen from the seat; there were ten persons in the *coucou* at the time, and the wheel passed over his body. The track made by the wheel was along the right side, from the groin to the shoulder; but the external injury appeared to be of no consequence. The patient, however, complained of his breathing, and of pain in the region of the liver. He was bled, and poultices were applied.

Some days after, jaundice made its appearance, and an effusion in the right side of the chest was detected posteriorly. Blisters were put to the part. The effusion continued; the breathing became more embarrassed; and fever set in.

About a fortnight after the accident, a swelling was perceived over the liver; this spread, and extended from beneath the last false ribs to the median line of the body. Fluctuation in the swelling; jaundice and fever continue.

Most of those who saw the patient, gave their opinion that there was clearly an abscess of the liver; but M. Guersent (I record it to his credit) rather conceived that there was a large collection of bile in the gall-bladder, or perhaps an aqueous cyst in the liver, but no abscess.

The tumor was cautiously opened with a bistoury, when a *litre* (two pints) of pure bile came forth. The opening remained fistulous for some time, giving issue to a colored liquid supposed to be bile. No remarkable accident supervened.

When M. Roux returned to the hospital he saw the patient, when, upon maturely examining the case, he announced that it was the *stomach* that had been opened: the liquid that came forth, he said, proceeded from the interior of that viscus. The patient died shortly after, of confluent small-pox, when upon holding a *post-mortem*, it was found that the large lobe of the liver had been ruptured. The extent of the laceration was about two

inches in length, and as much in depth. A kind of cellular cyst had been formed about the ruptured part, into which the bile gathered; and this was the cyst that had been opened by the operation.

These cases are certainly not unique in surgical practice; yet, with respect to the first example, it is perhaps more usual in like circumstances to meet with rupture of the stomach than of the colon. As to the viscera of the chest and head, their laceration by simple pressure, without lesion of the solid walls that contain them, is difficult in adult age, unless we confound the effects of locomotion with those of pressure. It has, however, sometimes happened, in the case of young children, in consequence of the yielding nature of the walls just mentioned. Morgagni records such a case in his *Sed. et Caus.* Ep. liii. n. 33; and my colleague, M. Troncin, has treated with me a child, two years of age, whose brain was injured (*lesé*) by simple pressure, without any rupture or laceration of the external parts. — *Lond. Med. Gaz.*

Proposal to Test the Contagiousness of Plague. — The question of contagiousness has no more decided or active enemy than Dr. Chervin. At the period of the prevalence of the yellow fever, and during the prevalence of the cholera, he generously offered to submit his own person to any experiment which the *Royal Academy* of Paris might think fit to propose. The reappearance of the plague in Egypt has again given him an opportunity of exhibiting this noble zeal and devotion for the general good, and he has just written a letter to the minister of commerce, in which he proposes that the clothes worn by individuals affected with the plague shall be taken, placed in boxes hermetically sealed, and transported to the Lazaretto at Marseilles, where M. Chervin offers to shut himself up for a given time, wear the infected clothes, and make any other experiments that the minister may think fit to propose. As the experiment should be made on a large scale, M. Chervin thinks that France can always furnish a sufficient number of devoted men, while an unlimited quantity of vestments may be procured from Egypt. The reply of M. Duchatel is evasive, but allows it easily to be seen that the French government does not think itself authorized in having recourse to this method of clearing up the question. The minister calls to mind a similar proposition made in 1825, by MM. Lassis, Costa, and Lasserre. The question was referred to the Royal Academy of Medicine, and that learned body, though it acknowledged that experiment was the only means of resolving the problem, yet raised several weighty objections against the admissions of the demand made by M. Lassis, both

with regard to its legality, the danger of the experiment, and, finally, the results that might be expected from it. Under these circumstances, the minister proposes to refer the offer of Mr. Chervin to the chambers of health and commerce, and to the corporation of Marseilles. — *Journ. Hebdom.* No. 10, 1835.

EDITORIAL NOTICES.

A word to our Readers.

From the commencement of our labors as conductors of this Journal, we have endeavored, with the limited means within our reach, to render it "a respectable depot and vehicle for the medical facts and opinions of the times, a faithful record of the progress of medical science, and an independent commentator on the rights, relations, duties, and professional behavior of medical men." Hitherto, however, our efforts have been attended with much vexation and embarrassment — our anticipations of increasing its usefulness and enlarging its patronage, have been in some degree disappointed. In place of zealous and efficient aid, we have met with chilling indifference, or reluctant and lukewarm commendation. We have experienced ungentle criticism at the hands of those to whom, of all others, we looked for friendly assistance and encouragement. Deprived of the innumerable advantages for procuring novel and instructive matter enjoyed by foreign periodicals of a similar character, forbidden to enter our public institutions as medical reporters, warned by the lecturers in our school that trespassers on their property would subject themselves to legal prosecution, we have been obliged to exert our utmost endeavors in wearying personal application for promised contributions, or cater for our pages from the recorded labors of others. If, under these circumstances, the Magazine has been wanting in originality, if its Editors have been forced to become mere compilers, the blame rests not with them. The Journal was established by the voluntary act of a good portion of the profession in this city; and all who contributed to its establishment became in a measure pledged to its support. The pledge has not yet been fairly and fully redeemed. We ask therefore, for that hearty cöoperation which alone is needed to

ensure the Magazine an enviable standing among the medical periodicals of the day. No one can doubt the ability of the profession to sustain it: no one can deny that every motive to do so exists, which can operate in a similar case. It was created by them; its reputation is identified with theirs; upon them it is dependent for existence; and if neither public spirit nor professional ambition can rouse their energies in its favor, there has been, and there is again tendered them ample and generous pecuniary compensation.

One word more. We have deprecated the introduction of *medical politics* into our ranks, from a conviction that nothing tends so directly to disturb that harmony which gives us collective influence, and the want of which has ever been a source of popular ridicule and reproach. With this view of the subject, communications calculated to excite personal controversy and ill feeling have been firmly declined. We wish it, however, to be distinctly understood, that whenever, wherever, and by whomsoever, the rights of the profession are invaded, its character assailed, or its confidence abused, we shall cheerfully and willingly offer our aid and our pages in its defence.

Massachusetts Medical Society.

The Fellows of the Massachusetts Medical Society are reminded of the approaching annual meeting, which takes place a week earlier than heretofore, viz. on the 27th instant. It is hoped that there will be a prompt and full attendance, as matters of peculiar importance may come up for consideration. The erection or purchase of a building for the use of the Society is understood to have occupied the attention of the Council during the past year, to whom we trust the Society at large will look for a minute account of their doings. This is not a subject of temporary interest, but one, the disposition of which will afford cause for future satisfaction or regret. Its importance is therefore urged upon the attention of each individual member, who has, indirectly at least, a voice in its decision.

The circular of the committe of Counsellors relative to the "History of Intermittent Fever in this Commonwealth and throughout New England" should also be borne in mind. If those members who have had opportunities of watching this

disease, and are possessed of facts bearing upon it, have not already communicated the results of their observation, they will find the coming anniversary a convenient and proper occasion to do it.

It will also be remembered by the Fellows, that the death of Dr. Dixwell has made a vacancy in the office of Vice-President, and that as this officer is to be selected from among the Counsellors, whoever they may wish to have a candidate must be made a member of that board. We have heard Dr. Howe of Billerica, Dr. Miller of Franklin, and Dr. Wyman, late of the McLean Asylum, named as suitable gentlemen for the office. Either of them, we believe, would do honor to the place, and be deemed worthy of the distinction by the members of the society.

Massachusetts General Hospital.

As the proceedings of this Corporation are peculiarly interesting to medical readers, and have lately become the subject of much conversation in professional circles, we publish the following account of its organization for the present year, from a paragraph among the items in a daily paper. The votes of thanks which are appended, we presume are authentic; but they appear without any official attestation.

That relating to Dr. Wyman, however informal and deficient in the usual etiquette of such compliments its announcement may be, is too well known to contain only the sober truth in regard to his connexion with the McLean Asylum, to need the confirmation of any signature.

He retires from the eminent medical station which he has adorned and magnified, in consequence of infirmities induced by unremitted devotion to its arduous duties, with not less of the respect and esteem of his professional brethren, than of the board of honorable and intelligent gentlemen to whom he was immediately responsible, and by whom his resignation was most sensibly regretted.

At the stated meeting of the Massachusetts General Hospital, held on Wednesday, Jan. 28, 1835, the following gentlemen were elected officers for the ensuing year.

Joseph Head, *President.*
Ebenezer Francis, *Vice-President.*
Henry Andrews, *Treasurer.*
Nathaniel I. Bowditch, *Secretary.*

Thomas B. Curtis, Samuel A. Eliot, Francis C. Gray, Abbott Lawrence, Charles G. Loring, Josiah Quincy, Jr., Edward H. Robbins, and Edward Tuckerman, eight Trustees on the part of the Corporation. The remaining four are to be chosen by the Board of Visiters.

The following votes were then passed:

Voted, That the thanks of this Corporation be presented to Hon. N. P. Russell, who for fourteen years past, has gratuitously discharged the duties of Treasurer of this Institution with great zeal, ability and usefulness; he having declined a re-election.

Voted, That the thanks of this Corporation be presented by their Secretary to Dr. Rufus Wyman, for the zeal, ability and faithfulness with which, from the establishment of the McLean Asylum for the Insane, he has filled the office of Physician and Superintendent; with the assurance that this Corporation feel bound to declare that these qualities have mainly contributed to raise the reputation of the Institution to its present respectable standing, and have equally elevated his own character in his profession, and as a philanthropist.

An offset to the Lancet's "Well done Jonathan!"

Our readers may recollect that to an incorrect announcement in the London Lancet of a reprint in this country of the Cyclopedia of Practical Medicine, "revised and amended by the American Editors," was appended the sneering comment "*well done Jonathan!*" We consider the account fairly balanced by the following paragraph, taken from the notices to correspondents in that Journal for March 21st. "A great many correspondents trust, 'now that the Cyclopedia of Practical Medicine is completed, that no farther postponement will take place in the publication of the remaining parts of Dr. Copland's Dictionary of Medicine — the reply hitherto made at the publishing houses being, that the completion of the latter work has been deferred to prevent pilfering,' a cause which Dr. C. it is said, has himself also urged in extenuation of the delay." — In plain terms, Dr. Copland is afraid to go on with his work, lest the contributors to the Cyclopedia, that "great national undertaking, so creditable to British Medical Science!" should pillage his pages. Fie John! Rather worse this, than "revising and amending."

Medical Intelligence.

A translation of Louis's Pathological Researches on Phthisis, with "Introduction, Notes, Additions and a Treatise on Treatment, by Charles Cowan, M. D." is announced in the London Journals.

No man living has manifested more zeal and devotedness in the improvement of his profession, or more patience and industry in the observation and investigation of disease, than Louis. His works are models of exactness and accuracy; combining minuteness of detail (perhaps extreme), with clearness of arrangement, and displaying a rare talent for analysis and philosophical deduction. The appearance of any of them in our language is a subject for sincere congratulation.

The following items are from the Quebec Mercury of April 11th. We are entirely ignorant of the laws regulating the practice of medicine in the British Provinces, but neither a commission from "*His Excellency the Governor in Chief,*" nor "a mandamus from the Court of King's Bench," strikes us as a very desirable or appropriate introduction to the profession.

"*Office of the Secretary of the Province, Quebec, 7 April,* 1835. — His Excellency the Governor in Chief has been pleased to make the following appointment, — viz:

"Archibald Hall Esquire, M. D. to practice Physic, Surgery and Midwifery within this Province.

"The Medical Board for the District (of Lower Canada) ought to have met yesterday, but the Minerve says, that in consequence of the existing state of the roads, many members were prevented from attending, and that the meeting was adjourned to the 4th of May. It will be remembered that no meeting was held during the last quarter, and we should not be surprised to find that the absence of many from the meeting of yesterday, was pre-concerted, as the Board have received a mandamus from the Court of King's Bench to grant a license to William Logie, M. D. of McGill College, to which some of them wish to offer a stubborn resistance."

To Correspondents. — Dr. Porter's request has been complied with. — Dr. Wing's communication is on file.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim." — WILLIS.

SELECTED ARTICLES.

ART. I. — SIR JAMES MURRAY'S OBSERVATIONS ON THE TREATMENT OF DISEASE BY ATMOSPHERIC PRESSURE AND RAREFACTION.

From a Paper lately read before the Surgical Society of Ireland, and published in the London Lancet.

GENTLEMEN, — Two or three interesting discussions have already taken place in the *Surgical Society of Ireland*, on the *theory* of the effects arising from dissection wounds, and I hope it will not now appear out of place, if I lay before you some outlines of the principles which I think should direct our *treatment* on those occasions. To those who lament the loss of Dease, Shekelton, and many others, suggestions will not be considered useless on a subject which concerns the safety of the pathologist as well as that of the student of anatomy.

You are well aware, Gentlemen, that no plan hitherto devised has been found capable of preventing the progress of any subtle poison to the heart, except that which comprises some modification of 'suction.' You also know that during post-mortem examinations, when the hands are covered with the most offensive animal matter, suction by the mouth is seldom efficiently practised, and also that it is difficult to employ exhausting or rarefying glasses on unequal surfaces, such as those of the fingers and other parts of the hand. The consideration of

these difficulties led me to contrive a metallic case for embracing the whole hand, with an adaptation to render it air-tight, either above or below the elbow, a pipe to connect it with the exhausting syringe, and another to attach it to a mercurial guage which should regulate the degree of vacuum. When the rarefaction is properly effected, it can be continued for any length of time which may be considered requisite for the protection of the patient from the effects of these wounds, as well as the effects of the bites of rabid animals, and other means of introducing deleterious matter.

This plan is certain of being effectual for spaces between the fingers, where the proper suction could not be effected by the mouth, or by any topical instrument. This mode is sure to embrace every scratch about the parts which have been most exposed, — even such, indeed, as are not seen, felt, or suspected. It will not only act as an effectual preventive, if used by way of a precaution, but it will greatly assist the cure, even after the symptoms have set in. Sir David Barry was able to arrest the most violent constitutional symptoms in inferior animals by dry cupping.

Long before the discussion on these matters commenced here, I had put into the hands of your secretary, Dr. Jacob, and others, a prospectus of some lectures, in which I had proposed to explain this, and similar adaptations of the principle; but as the plans require demonstration, in order to become perfectly intelligible, I shall not now trouble you with a description of them.

The value of suction in preventing the introduction of poisons into the circulation, was as well known to the ancients as it is to the moderns, and was much more frequently practised by them. The wound of Philoctetes was inflicted by one of the poisoned arrows of Hercules, and was cured by Machaon by the power of 'suction' alone, as we find related in the fourth book of the Iliad. Plutarch mentions that the Psylli and Marsi were hired to attend the camp of Cato in Africa, for the purpose of sucking the bites of venomous reptiles, and that they invariably succeeded in their attempts, at the same time causing the part to swell, which proved the power of the vacuum they had produced. Hippocrates mentions the use of dry cupping to extract injurious matter from wounds: —

> 'Cucurbitulæ quæ enim in usum fabricatæ,
> Sunt ut ex carne attrahant et avellant.'

and Celsus says, that if it should so happen that the cupping-glasses are not at hand, a man must be procured to suck the part. 'Homo adhibendus est qui vulnus exugat.'

The experiments of Sir David Barry confirm the opinion and practice of the Greeks and Romans, and even extend so far as to prove that the application of a cupping-glass for half an hour deprives the vessels of their absorbent power during an hour or two after its removal. Modifications of the apparatus alluded to are, in my opinion, much better adapted for effecting this important object on irregular surfaces than any of the usual cupping-glasses.

Upon the subject of diminishing or abstracting atmospheric pressure, I should not omit to enforce the value of forming a vacuum immediately on opening a lumbar abscess, into which vacuum it is easy to elicit the matter by means of an elastic pipe, when such may be required. Without in this way abstracting the atmospheric air from the canal and cavity of the sac, it is almost impossible to prevent the ingress and supposed bad effects of that air.

Around an abscess in a limb you can apply circular pressure, and bring the sides of the cavity into contact; but not so in cases of psoas abscess, where the bones of the pelvis, and the irregularity of the passages, prevent the application of such pressure. Besides, every motion of the lumbar and flexor muscles of the thigh, and even the act of respiration itself, tend at intervals to make a vacuum in the sac, into which the air rushes, producing many evils, and causing the absorption of the pus and its vapor or effluvia, which cannot so readily take place if the atmospheric pressure be taken off.

Independently of the value of this principle in the evacuation of matter, air, water, or extravasated blood, it is very advantageous in drawing out such hemorrhoidal or other tumors in or about the anus, as it may be desirable to have fully elongated for the purpose of excision, either by the knife or by ligature.

In a medical point of view, the process of rarefaction may be very important in again determining to the surface those retrocessions of eruptions, gout, rheumatism, and other translations of disease, which frequently are so injurious to the vital organs.

Rarefaction of the air is in many other ways an agent of great power and extensive adaptation; for instance, ladies in whom the development of the breasts is deficient, and who

have, consequently, a paucity of milk, may have the supply required, merely by increasing the caliber of the arteries, and of course the determination to, and retention of, the blood in those parts; for milk is but blood altered by the vital and galvanic apparatus of the mammary glands. In cases of small contracted breasts, I have seen the abstraction of one, two, or three pounds, per inch, of pressure, expanding the vessels, augmenting their tortuosity, filling up the mammæ, and producing plenty of milk in healthy subjects. By determining a similar plenitude in this manner to the uterine vessels through the well-known sympathy of the breasts, I have frequently succeeded in causing the menses to appear after long-continued amenorrhœa. How rational is this mode of determining the vital fluid through the mammary arteries, when compared with the mode, lately proposed, of curing obstructed menstruation by applying leeches, sinapisms, and other irritants to the breasts, and how superior to the plan just now tried in France of eliciting menstruation by sucking the nipple! The French mode only dilates that appendage; mine replenishes it, as well as the whole body of the breast.

Having now spoken of *particular* applications of this principle, I shall say a few words respecting its general powers. On the 14th of July, 1832, I published in the *London Medical and Surgical Journal* a description of an apparatus for abstracting part of the atmospheric pressure from the entire surface of patients. This proposal was made for cases in which it was desirable to determine the circulation from the *centre* to the *circumference*, to open the pores of the skin, induce perspiration, and cause a revulsion of any congestion from the internal organs to the exterior superficies. One of your talented members, Dr. Hart, and his associates, published the result of some trials on cholera patients, who had previously been relinquished to their certain fate at the hospital. Even then the results were sufficient to prove the great efficacy of the principle, for in all cases it rendered the cold and bloodless integuments warm, and the capillaries permeable to the circulation. Many of you, Gentlemen, may have seen the apparatus and the publications respecting it. I now observe that in 1835 it is copied exactly by the French, and notwithstanding I had circulated the journal in Paris in 1833, on my way to Rome, yet like most other imitators, they have misunderstood the theory, and misapplied the practice. They put the patient wholesale into the bath, pump off the air, and let the unfortunate person

gasp for breath ; whereas all the merit of my plan consists in furnishing the lungs with air of the usual density and pressure, while I diminish the density and pressure on the exterior parietes of the chest and whole surface of the body. At some of my lectures I mean to show this, along with the other apparatus.

Leaving the subject of rarefaction, I shall now say a few words on the reversal of that agency, *condensation*. The influence of increased pressure, and the elasticity of the atmosphere, is a matter of great moment, and one the details of which will admit of varied extension. I am the more desirous to call your attention to this topic, without waiting for the delivery of the intended lectures, in order that I may the sooner submit to your consideration the result of certain trials of the effect of atmospheric pressure. In presence of the respected Vice-President of the College of Surgeons, Mr. White, now in the chair, I instantly reduced a very inflamed, turgid, tender, and most troublesome *prolapsus ani, without touching the sensitive protrusion*. Any of you may see the child at Larkin's, No. 32, Bridgefoot-street, in this city, and it is worth the trouble of visiting. I succeeded in a similar extremely bad case last winter at Rome, after all the usual means had failed in the hands of others. The great advantage of my plan consists in this, that it *empties* the turgid blood vessels, and quickly reduces the protrusion, without inflaming or irritating the rugæ or folds of the mucous membrane, and without the painful operation of introducing the fingers, paper cones, or folded cards, as formerly recommended. When the prolapsus is reduced by the pressure of air over a surface of oil, lime-water, or infusion of galls, the relaxed villous coat seldom descends again, and if it do, it returns with the greatest facility, because its veins are comparatively empty, and its morbid sensibility is subdued or abated, by the uniform pressure.

It is almost incredible to those who do not reflect, what advantages I have seen resulting from introducing, under a cup, a wet bladder, or some other cover, an elastic compress of air upon tumors and swellings of various kinds. Among these may be reckoned chronic enlargements of the breasts and other glands, swellings in the cellular and interstitial tissues, white swellings of the joints, and distensions of the bursæ, bleeding, or fungus sores on surfaces, indurated tumors, and local congestions. Owing to my long absence, I had not sufficient opportunity to try this mode of compression in varicose veins or

aneurysmal dilatations; but I have frequently returned reducible herniæ without pain or difficulty.

The modes of pressure recommended by Recamier, Young, and all other writers, are liable to many objections. Their compresses bear most upon the centre and sensitive apex of the tumefaction, press with great inequality, thin the parietes, and frequently hasten the degeneration of scirrhous enlargements into cancerous ulceration; but, on the contrary, the method here recommended, presses equally upon all parts of the swelling, defends the skin from abrasion, compresses the circumference of the part, acting upon the vessels *around the tumor, where they are most capable of absorbing*, propels away the contents of the veins, and prevents further untoward influx by the arteries. To persons accustomed to the manipulation of valves and machinery, these processes soon become manageable, the degrees of compression being easily regulated by a mercurial guage.

I have already mentioned that Sir David Barry and many others have proved, that the withdrawal of the air by suction or dry cupping, prevents the penetration and imbibition of poisons. I have proposed a reversal of this law, that is, *to enforce the absorption of remedies* by superadding an artificial atmospheric pressure. Warm or cold lotions, medicated infusions, gasses, or vapors, may thus be introduced into the part affected, and the power of imbibition, or percolation, very much increased by well-regulated compression. In this manner solutions of iodine, or its vapor, sulphur, mercury, narcotics, or sedatives, can readily be introduced in local affections or general complaints. In cases of tic douloureux, spinal disease, and sciatic ailments, I purposely detach the scarf-skin, and topically introduce the appropriate remedies by pressing them into the affected tissues, on the principle of transfusion through the membranes. On the other hand, a compression of atmospheric, or any other air, *over inflamed surfaces*, is well calculated to propel the overflow of blood onwards to the general circulation. I have experienced the good effects of such condensation over erysipelatous and erythematous inflammations.

The arteries of the female breast become remarkably tortuous and distended after parturition. In cases where the mother cannot nurse, or where the child dies, this untoward circulation produces fever and irritation. It becomes, therefore, a matter of great moment to diminish the size of the blood

vessels, and lessen their activity. Cold applications, astringent lotions, and irregular compresses have been frequently productive of serious constitutional and local injuries, but when you surround the whole mamma by a disk of proper shape, as it were, *insulating* the breast, and pressing only around its base, you cut off the supplies by moderate gradations, and you diminish sensibility by gentle, diffused, and elastic compression. If you prefer soothing or emollient liquids to condensed air, they can be put into the cup or disk at any temperature which is most proper or agreeable. All organs which require sudden increase of activity, and great occasional supplies, such as the womb, the stomach, the spleen, &c., are furnished with tortuous arteries; and this twisted condition increases as the volume and active functions increase. This tortuosity may be designed by nature, not so much to impede the force of the circulation, as to detain and delay the blood in its way through the organs requiring at those periods such extra replenishment. Pressure remarkably diminishes the tortuosity of arteries which supply enlarged or inflamed glands and tumors, approximates the sides of the vessels, abates their sensibility, lessens their contents, and reduces large trunks to the diameter of minute branches. This contraction is admirably calculated to impede and expel a plenitude of blood, to diminish engorgements and dissipate infiltrations.

Infants may die from leech-bites; the whole family cannot stop the hemorrhage; even the doctors have failed in extinguishing the rushlight. They all knew they could command any quantity of blood *to flow* by making a vacuum over the bites, but it never entered their heads that it would be just as easy to stop the orifices by making a *plenum* over them. Three or four strokes of the compressing piston condense the air, and instantly arrest hemorrhage. The by-standers stare, and exclaim, 'How curious!' 'It is so simple.' 'We never thought of it before.' But it is not only leech-bites that condensation will stop, but uterine and other hemorrhages, whenever compression can be applied by means of water or other proper liquid, so as to overcome the impetus of the blood. A few inches of mercury indicate a pressure quite equal to this. This condensation you can regulate with the utmost precision, every inch of mercury indicating half a pound of pressure.

By means of well-regulated condensation of air, you can

retain the bowels within the cavity of the abdomen, when its parietes have been opened or torn, and you will be able to command the flow of blood from fungous tumors and ulcerations.

Art. II. — Effect of the Employment of Gelatine as Food, in the Development and Maintenance of Muscular Power.

In a former memoir, M. Edwards, in conjunction with M. Balzac, examined the influence of gelatinous aliment on the weight of the body, the experiments to this end having been made on animals that could be treated in any rough manner. But in order to apply the results to many, the species chosen was one whose digestive functions were nearly allied with our own.

In ascertaining the effects of gelatine, it was employed in two different states, first, in a state of purity, and consequently mawkish and insipid, and again, somewhat dressed (aromatisse.) In the former case it was proved, both by the effects on the weight of the body and by the continued existence of the animals subjected to its use, that gelatine in a state of purity was nutritious in a degree, but is not sufficient of itself to preserve life; as indeed is the case with other alimentary substances, and even bread.

The experiments of the same gentlemen also went to show that a continuation of bread and gelatine was also insufficient for the preservation of life, though the exhaustion of the latter was somewhat more gradual than when either material was employed alone.

As regards dressed gelatine, that is, dressed with the sapid and odorous part of meat, MM. Edward's and Balzac's experiments show, that this substance thus modified, possesses highly nutritious qualities, so much so that such an addition afforded all the dietetic qualities essential to the preservation of the weight and even to the growth of the body.

In the experiments made on dogs, they ascertained, to a certain degree, the greater or less activity and strength dependent on the variation of diet; but an exact calculation

could not be made. In the experiments on men, the sensation of exhaustion or power could only be approached in measurement, and it was therefore necessary to have recourse to some mechanical means, to ascertain exactly the variations of strength; but it was more particularly necessary to observe whether, independently of diet, there were not causes tending to produce variations of strength, and should such be discovered, to learn whether these variations could be subjected to some regular law.

By means of a dynamometer, M. Edwards measured the strength of one individual at five different periods of the day; at seven o'clock in the morning; eleven in the morning; one o'clock; seven in the evening, and eleven in the evening. These experiments, repeated during ten successive days, and in similar circumstances, gave the following average figures of the strength of the hand:

Seven in the morning,	67,7	degrees.
Eleven "	72,1	"
One	73	"
Seven in the evening,	71,2	"
Eleven in the "	67,6	"

Thus, from the time of rising at seven in the morning up to one o'clock, the strength was on the increase, after which it gradually decreased; it was lowest at the two ends of the day. What was the reason of this? Does the aliment taken an hour after rising in the morning lay the foundation of the increasing powers? or is such a process merely dependent on a natural law? To settle this, the hour of meal-eating was changed; breakfast, which had hitherto been taken at eight o'clock, was deferred to half past ten. The dynamometer was then used at seven, half past nine, and ten o'clock; the average of the three periods showed that in the interval, and without taking any nourishment, or the intervention of any appreciable exciting cause, the strength had progressively increased. Therefore, it is plain that when fasting, a progressive increase of muscular power occurs during the major part of the morning, without any other excitation than the natural play of the organs, and the mild action of external agents. Further experiments, however, showed that after breakfast the dynamometer was raised seven degrees, evidencing that though the increase of power is independent of, it is still aided by the ingestion of aliment.

[Many experiments made by M. Edwards on the privates of a regiment, are related in this portion of his memoir; we shall, however, content ourselves with the conclusions he draws from them regarding the influence of aliment on the muscular powers: they are as follows.]

It may therefore be established as a general rule, that there is an augmentation of muscular power in some men after every meal that is composed of good materials: and there is every reason to suspect that the exceptions observed were owing to the fact of some of the subjects of the experiments not being sound men (hommes forts.) To verify the point, similar experiments were made on persons that were unsound either from disease or from age, and the results were the converse to those remarked in the soldiers. In individuals therefore who, in proportion to their age, are relatively debilitated, and have still a nominal constitution, there is a general decrease of muscular power immediately after eating; but this descending tendency is far less pronounced than the contrary tendency, which is found under similar circumstances.

This contact between the immediate effects of food on the muscular powers, according to the soundness or debility of individuals, is worthy of attention. The elevation or depression of the powers which follow the ingestion of aliments is, as it were, instantaneous; it is the consequence of a passing contact, and altogether distinct from the subsequent effect of digested food. This operation commencing immediately after the arrival of food in the stomach, tends to concentrate there the powers of the individuals, and consequently to counterbalance the other effect. Two opposite tendencies therefore obtain after the ingestion of aliments, and it is the difference between them that the dynamometer makes known; this difference is minus in feeble and plus in vigorous persons. If the quantity of aliment is moderate, the call of the powers towards the stomach will be less, whilst the excitation produced by the contact will be the same as if the meal had been larger. We may then imagine cases wherein, after taking soup, the development of the muscular powers shall be greater than at the end of the meal. This excitement is also greater after dressed than after simple gelatine.

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It may therefore be laid down as a general proposition, that the intensity of the action of gelatine on the muscular powers tends to increase with the proportion of this substance; whence it would follow, that soup made with two ounces of gelatine and

a pound of meat would act more energetically on the muscular powers than common soup made from four pounds of meat. The strengthening influence of gelatine by itself, has been confirmed by another result, namely, that the fortifying action of soup with the maximum of gelatine, has not only greater intensity but also lasts for a longer period; for it must not be supposed that the terms, intensity and duration, are always connected.

ORIGINAL ARTICLES.

Art. 1. — Contributions to Pathological Anatomy.

By E. Bartlett, M. D.

Typhus Fever.

Case 5. — Dec. 20, 1834. I visited this day Miss. A. L., in consultation. The patient is about 25 years old, and has been complaining for seven or eight days. She has had some diarrhœa. She was visited by her physician yesterday, for the first time. To-day there is no complaint of pain. Respiration is short, hurried and irregular, with slight cough, but no expectoration. Chest sounds well on percussion. The countenance is pale. The tongue is moist, with a light colored, thin coat. There are, two or three times a day, febrile exacerbations, when the cheeks are flushed, and the patient becomes thirsty. She has, occasionally, what the nurse calls *fainting fits*, during which she is very much distressed, with a sensation of sinking and extreme exhaustion. The pulse is 130, feeble and soft, and not alike on each side. In the left wrist, the beats are very unequal in strength. She has also had some pain in the left arm, especially on moving it.

Dec. 23. — The respiration and pulse are not quite as rapid as they were on the 20th. All the other symptoms are more alarming. The debility is extreme, with the same feeling of faintness and sinking. The abdomen is full but not tender to the touch. The tongue is red, dry and clean, and sticks to the teeth when the patient attempts to protrude it. No delirium.

The patient died December 25th, and was examined on the 26th, seventeen hours after death.

Externally, there was nothing remarkable. In the chest there were no unequivocal traces of recent disease. On the left side there were a few long, slender adhesions. The substance of the lungs appeared healthy throughout. The mucous membrane of the bronchiæ was not examined. The heart was empty, and rather flabby. The peritoneal surface presented nothing of a distinctly morbid character. The glands in the lower portion of the small intestine were very extensively altered. In the space of five feet from the ileo-cœcal valve upward, there were twelve elliptical plates from half an inch to two and a half inches long, more or less diseased. Those in the upper portion, were developed so as to be distinctly visible, with beautiful reticulated surfaces, but they were not sufficiently changed to be distinguished by the touch. Further down, their edges were hard and prominent, their whole surface elevated with a honey-comb appearance. Near the termination of the ileum, one of Peyer's glands was extensively ulcerated. Its surface was ragged, with hard, prominent edges. In several points it was covered with bright yellow matter, resembling feces. This yellow color has been noticed by pathologists, and has been by some of them attributed to the presence of adherent fecal matter. A pretty careful inspection of this and several other cases, has convinced me that the yellow substance consists of diseased structure, being either the altered mucous membrane itself, or a morbid secretion in the substance, or on the surface of the glands. I have found this colored material only in those glands which were most extensively diseased, and alike frequently, in the isolated glands and in the oval plates of Peyer. It does not wash off from the surface to which it is attached, and it is evidently continuous with the subjacent texture. Interspersed among the elliptical and circular plates there were numerous isolated follicles, showing various degrees of disease, those near the lower extremity of the intestine prominent, friable and yellow. The mucous membrane of the small intestine was, in several places, vascular, but not sensibly changed in consistence. There were three or four ulcerations as large as a pea in the cœcum, and the inferior surface of the ileo-cœcal valve was covered with a large number of minute, superficial ulcerations. The mesenteric glands, especially such as were situated opposite to the diseased intestine, were enlarged and red.

The spleen was very much larger than natural, black and friable.

In one ovary there were two cysts, as large as hazel nuts, with polished surfaces: in the other there was one of a similar size, containing a small quantity of grumous blood: the two first mentioned contained a clear fluid. They were all situated near the surfaces of the ovaries. The brain and other organs were not examined.

Case 6. — This patient, W. S., a lad 17 years old, engaged as a clerk in a store, was first seen by his physician, Dr. Huntington, December 21st, and he died December 24th. All that could be ascertained of his symptoms previous to the 21st was, that he had complained of headache for several days, and had said that he could not write as well as usual, *that his lines were not straight.* I saw him December 23d; he was then furiously delirious, getting out of bed, crying out, talking incoherently, &c. The respiration was irregular, at one time noisy, quick and hissing, then quiet for a short time, then tumultuous again, and so on. The chest dilated freely, and gave a good sound on percussion. There was slight cough. The abdomen was swollen and tympanitic, and there was moderate diarrhœa, which was easily restrained. Last evening his urine was voided in bed involuntarily. The pulse ranged from 138 to 170 beats in a minute; with a jirky feel, but soft and compressible. The tongue was clean, red and moist. The skin was soft and not very hot, and there was no preternatural heat about the head. The expression of the countenance was but little altered. There was no important change in his symptoms till the time of his death, except that the delirium gradually passed into coma.

The body was examined twenty-three hours after death. Externally, there was nothing remarkable, unless the unaltered and very natural expression of the face be considered so. There was no perceptible emaciation.

Head. The scalp was considerably full of blood. The veins within the cranium were somewhat turgid, and there was a good deal of arterial injection of the membranes. There was slight effusion of serum between the pia mater and arachnoid, mostly along the trunks of the large veins at the summit of the brain. The interior of the brain, when cut, was immediately dotted over with numerous points of blood. The vascularity of the cerebral substance seemed decidedly preter-

natural, but the venous congestion and the effusion of serum was not greater than they are often found in cases where there have been no symptoms of diseased brain. The whole brain was very firm, retaining, almost perfectly, its shape when removed from the scull and placed on a board. The cerebellum was, as usual, much softer than the cerebrum. Dr. Hale, in a paper on typhus fever, in Vol. II of the Magazine, speaks of a striking *distinctness* in the convolutions of the cerebellum, and suggests the possibility of its being a morbid condition. This appearance was very obvious in the present case, and so far as my recollection extends, it has not been less so in all the brains which I have examined. I suppose, therefore, that it is the natural state of the organ.

Thorax. The dimensions of the thoracic cavity were very small. The summit of the liver, covered by the diaphragm, was on a level with the space between the third and fourth ribs. This state of things I supposed to be occasioned by the pushing up of the abdominal viscera after death. Before death the walls of the abdomen were very much distended by flatus; at the time of examination this distention had wholly disappeared. The lungs were sound, unless some small portions along the lower and posterior edges be excepted, which were destitute of air, and engorged with blood. The heart was rather flabby, and entirely empty of blood throughout, in the right cavities as well as in the left.

Abdomen. On laying back the parietes, there was no omentum to be seen. The transverse arch of the colon was pushed upwards and so turned over that it concealed, between itself and the lower surface of the liver, the omentum, thus crowded backwards entirely out of sight. The great and small intestines were much distended with flatus. The peritoneal surfaces were healthy. The mucous lining of the small intestines was in much the same condition as in Case 5. The isolated and the agminated glands were diseased to about the same extent. At the distance of six or seven feet from the lower end of the ileum, the oval plates were not changed in color, nor perceptibly elevated above the level of the adjacent membrane, but they were beautifully developed so as to be easily and distinctly seen at the distance of many feet. Near the inferior termination of the intestine, there was one of Peyer's glands, about the size of a dollar, with very prominent edges, and a ragged, ulcerated surface covered with the yellow substance. The mesenteric glands were enlarged and inflamed. The mucous membrane of the large intestines was not exam-

ined. The spleen was large, soft and pulpy. There was nothing unusual in the appearance of the liver.

Case 7. — Mr. B. G., stone-cutter, a hale, healthy man, was attacked, December 20, 1834, with pain in the situation of the cœcum. There was also tenderness on pressure over the same part. He had slight headache, his tongue was covered with a moist, yellowish coat, and his pulse was moderately excited. Free leeching and the operation of cathartics removed the pain and tenderness. After this, Mr. G. remained in nearly the same general state for four or five days. He then began to complain of uneasiness and distress across the epigastric region. He had occasional nausea and vomiting. The skin was at no time very hot, although he had two or or three febrile paroxysms in the course of each day, during which his cheeks had a dark flush. There was slight cough, but no expectoration, and the breathing was good. The patient was rather dozy, but restless, and he had no quiet or refreshing sleep. The mind was same but sluggish. There was some tendency to diarrhœa. Mr. G. grew daily worse. Jan. 3d, he was delirious. He talked incoherently, and tried to get out of bed, although he answered questions readily, and knew those about him. His pulse was from 130 to 150, soft and feeble. The abdomen was distended and tympanitic, the tongue dry and red. He gradually sunk and died Jan. 5th.

Examination fourteen hours after death. There was slight serous effusion between the pia mater and arachnoid, and at the base of the brain. Each lateral ventricle contained about a large teaspoon full of fluid. The substance of the brain was very firm, and there was no unusual vascularity about it.

The left lung was crepitous throughout, and apparently free from disease. On the right side the pleural surfaces were adherent throughout their whole extent. The adhesion was not very firm, and was pretty easily destroyed by the fingers, without tearing the serous membrane itself. The whole right lung was engorged with blood, solid, hard and friable, but still pervious to air. It contained a large quantity of serum. Every cavity of the heart was destitute of blood.

In the abdomen the serous surface was free from disease. There was a circumscribed adhesion between the omentum and the petitoneum in the region of the right groin. The small and large intestines contained a considerable quantity of dark colored matter, almost like grumous blood. Peyer's and

Brunner's glands were, as in the preceding cases, very extensively diseased. In the course of eight feet of the inferior portion of the small intestine there were as many as twelve of the former, from half an inch to two inches long, of an oval or oblong shape, more or less developed or altered in their structure. Within a few inches of the lower extremity of the ileum, there was one of the oval plates with very hard, thick, defined and prominent edges, and an elevated rough surface. In this patch there was a well-defined circular ulcer, one third of an inch in diameter, extending entirely through the elevated and thickened mucous membrane. Hundreds of the isolated follicles were in different states of disease, from their simple development to the yellow transformation or deposite, and to ulceration. In those of the agminated follicles most extensively diseased near the lower extremity of the intestine, there was the same yellow appearance. There were in the course of the small intestine several patches or zones of increased vascularity — in some places, of a uniform color, in others, arborescent. The glands were not any more diseased in these situations than elsewhere. There was no obvious alteration in the thickness or consistence of the mucous membrane situated between the altered follicles. The large intestine was not examined. The mesenteric glands were much enlarged and vascular. The centre of one of them contained a purulent looking fluid. The spleen was unusually large, pulpy and soft.

Case 8. — Dr. Mowe was called to Miss S. W., aged 23, March 13th, and she died March 17th. I did not see this patient during her life. She had been complaining for three weeks before her physician saw her, of pain about the stomach and bowels, but followed her occupation in the mill until March 9th. She did not take her bed till March 12th. Dr. Mowe found her complaining of chilliness, headache and distress at the pit of the stomach. The tongue was red, moist, somewhat swollen, and covered with a tenacious, adhesive secretion. The pulse was 150, small and soft. The patient had been very thirsty two or three days, and still continued so. She wanted cold water for drink. There was slight, occasional delirium, which became more constant and complete till the time of her death. There was a great deal of restlessness, no quiet sleep, and a continual complaining of extreme distress about the epigastrium. There was neither tenderness nor distension of the abdomen. There was no diarrhœa, and it did not ap-

pear probable that there had been any previous to her taking her bed.

Examination. Externally there was nothing remarkable. There was but slight emaciation. Circumstances prevented an examination of the thoracic and cranial cavities. About sixteen feet of the lower portion of the small intestine were examined with great care. Near the upper extremity of this portion, there was a small isolated ulcer, extending through the mucous membrane. There were in the same region occasional patches of increased vascularity. At the distances of two and four inches from the small ulcer there were two small elliptical plates, just enough developed to be distinctly visible. At the distance of five feet, there was another Peyer's gland, three and a half inches long, in the same condition. On its upper extremity there was a minute ulcer extending through the mucous coat. At the distances of three feet, of one foot, and of fourteen inches successively, there were Peyer's glands of different sizes, in the same state. Near the centre of the middle one, there was a small ulcer perforating the mucous lining. The three ulcers already enumerated, as well as some others lower down, instead of being oval or circular, had sharp, angular edges. In this region there were many isolated follicles slightly enlarged. At distances starting from the last-mentioned elliptical plate, of eighteen inches, of fourteen inches, of six inches, of eight inches, of four inches, and of fourteen inches, there were other Peyer's glands of various sizes, in nearly the same conditions. The lower ones were somewhat thickened with slightly elevated edges. In this region the isolated follicles were very numerous, much enlarged, and many of them ulcerated. In the course of the inferior two feet of intestine there were four elliptical plates,— one of them nearly three inches long, and three quarters of an inch wide, the others smaller, — with very thick, prominent edges, and ragged, ulcerated surfaces. In these four there was a good deal of the yellow material before spoken of. In the cœcum there were ten isolated follicles, nearly as large as a split pea, ulcerated superficially, and containing the yellow matter. The mesenteric glands corresponding to the lower portion of the ileum, were red and enlarged ; several of them were as large as horse chestnuts. The central portion of one was softened. In one of the ovaries there was a cyst that would admit the end of the thumb. The other organs were not examined.

Case 9. — Miss A. C., aged 25, was first seen by her physician, Dr. Kimball, March 25th, and she died April 4th. She had been complaining of a steady, dull pain in the head for two weeks before Dr. Kimball saw her, but she continued at her work till March 24th. From this time until the period of her death, she grew daily and constantly worse, symptom after symptom coming out and developing itself in a series as regular and gradual as the process of vegetation. There was no diarrhœa during the first four days. After that, it was moderate and easily restrained. The matter discharged from the bowels was fluid, like water, of a light yellow color. Just before death there was a very copious involuntary evacuation of dark grumous blood. For the first seven days the tongue was covered with a thin, moist, brown coat, the tip only being red. During the last two or three days it was red and dry, and was protruded with difficulty. The pulse was feeble and soft from the first, and never slower than 120. The respiration, during the last two or three days, was irregular, quick and noisy, not laborious. There was a good deal of thirst. During the last half of the time, there was occasional flushing of the face, with general febrile excitement. The mind was sluggish from the beginning. Slight delirium showed itself March 29th, and continued increasing until death. Muscular tremors, especially in the hands and arms, were constant after March 31st. There was no distension of the abdomen till April 2d, when it became tumefied and tympanitic. The swelling and tension subsided before death. There were two or three flea bite eruptions on the chest, and one on the right arm.

Examination fifteen hours after death. There was no emaciation, and the body was remarkably fat. In the head there was no unusual vascularity. The lateral ventricles contained about half an ounce each of serum. There was also rather more of the same fluid effused under the arachnoid, especially at the superior part of the brain, than in the preceding cases. The membrane itself was in some small patches slightly thickened and opake, occasioning an appearance which has sometimes, I suspect, been attributed to an effusion under the membrane of turbid, milky serum or lymph. The substance of the brain was very firm. The substance of the lungs was apparently free from disease. A small portion only of a bronchial tube was examined, the mucous lining of which was rather red, whether morbidly so or not, I am unable to say.

The peritoneal surface was natural, excepting some irregular shaped patches of redness on the serous coat of the in-

testines, which were probably the results merely of post mortem accumulation of blood. The glands of Peyer and Brunner in the ileum were in various states of diseased development. The agminated follicles were generally not so large as in the preceding cases. They were more and more thickened, as they approached the termination of the small intestine, and those nearest to the cœcum were much elevated, with irregular, rough surfaces, covered with the yellow matter. The mucous membrane of the ileum was not sensibly altered, and its contents consisted only of a small quantity of thin fecal matter, of a yellow color. Confined to the cœcum and commencement of the colon, were ten or twelve isolated follicles, with elevated and yellow points. The mucous membrane of the large intestine, from the edge of the ileo-cœcal valve, was of a uniform, dark red color, and unequivocally softened. The intestine contained a large quantity of a very dark, grumous fluid, resembling that discharged from the bowels just before death. The mesenteric glands were enlarged and red. In one of the ovaries there was a cyst as large as a hazelnut. The spleen was enlarged and soft.

The foregoing constitute all the cases, in which post mortem examinations were made, of a typhus fever which prevailed somewhat extensively in the town of Lowell during the past winter. This town is situated at the junction of the Concord and Merrimack rivers, and a considerable portion of it is built upon an alluvial deposite of sand and gravel. In many places the surface is composed of diluvial formations resting on granite, mica-slate and other primary rocks. During the last seven years, comprising a period in which the population has advanced from 3,500 to about 15,000, the town has generally been free from epidemic disease, and as healthy, perhaps, as any portion of the Commonwealth. During the year 1828, the number of females employed in the mills was estimated at 1500, and there did not occur in the town among this number, a single death in the course of the year. The rate of mortality for the town in the same year was only one in one hundred and twenty-five. In the following year the rate was one in seventy-nine. In 1830, the mortality was rather higher, and there were, during the year, fourteen deaths from scarlet fever, mostly among children. The disease was confined principally to certain sections of the town. In the winter of 1832 — 3, there were some fifteen or twenty cases of typhus fever, near-

ly all of which occurred in the same neighborhood. In most of the severe cases there were very prominent cerebral symptoms. Examinations in three cases exhibited the most obvious and extensive disease in the mucous glands of the ileum.

The fever of the last winter commenced early in December, and the most curious point in its history is connected with its chief locality. There have been occasional cases in almost every part of the town, but by far the greatest number occurred among the females employed in a single mill, and most of these, even, were confined to two rooms. This mill is situated on a line with five others, and in their immediate vicinity. It is about one hundred and fifty feet in length, and five stories high, the rooms occupying the whole length and breadth of the mill. The ground room is used for carding, and the average number of hands employed is thirty-five. *There was not a single case of the disease from this room.* The second story is used for spinning. Four females employed in it, went out sick during December, one on the 8th, 9th, 10th, and 15th, respectively. The one who left December 10th, died on the 27th of the same month. The average number employed in this room is sixty. In the third story is carried on weaving, and the average number occupied in it is sixty-five. Between Dec. 5th, and Jan. 22d, inclusive, *twenty-six* girls left this room, all of whom, excepting some two or three, were ascertained to have had the fever. They left the mill in the following order; one, Dec. 5th, two on the 11th, one on the 13th, one on the 18th, two on the 20th, two on the 21st, three on the 22d, two on the 23d, one on the 24th, 27th, and 31st, respectively. One left Jan. 5th, two on the 8th, two on the 9th, and one on the 10th, 12th, 21st and 22d, each. The fourth story is used for the same purpose, and has the same number of employed hands as the third. Between Dec. 13th and Jan. 27th, eighteen girls left this room. One left Dec. 13th, one on the 17th, two on the 19th, one, each, on the 20th, 22d, and 23d, two on the 24th, and one on the 27th. Three left Jan. 1st, and one on the 7th, 9th, 10th, 16th and 27th, successively. From the fifth story, occupied as a weaving room, and having from twenty-five to thirty girls employed in it, there were but two sick. One of these left the room Jan. 10th, and the other Jan. 17th.

Thus, out of one hundred and thirty females employed in two rooms of the same building, one third were attacked with

typhus fever between the days of Dec. 5th, 1834, and Jan. 27th, 1835. Of the forty-four sick from these two rooms, nine died in Lowell. There were also two deaths ascertained among those of the number who left the town immediately on leaving the mill. During this period there were a few cases of fever in various parts of the town. There could not be discovered anything about the mill or the two spinning rooms to account for the connexion of so many cases with these rooms. There was but a very small number sick from the other mills in the vicinity. The overseer of the room in the third story informed me that for nearly five years, during which he had had the care of the same room, there had been amongth se at work in it, only three deaths. There did not seem to be any connexion between the disease and the situation of the boarding houses of those who suffered from it.

Since the first of March, there has been a considerable number of cases of a character precisely similar to those already spoken of, nearly all of which have occurred in parts of the town remote from the neighborhood of the afore-mentioned mill. There have been more than twenty deaths by the disease since Dec. 1st, 1834.

In most instances the patient had been complaining for several days before calling a physician, commonly of headache more or less severe, pain in the back of the neck, in the back and limbs, loss of appetite, muscular weakness and chilliness. The sleep, even during the access, was disturbed and unrefreshing. In some cases there was dizziness accompanying the headache, or present without it. Southwood Smith says, that, invariably, the *first* symptoms of fever consist in some derangement in the functions of the cerebro-spinal apparatus. In two cases the first feelings of ill health experienced by the patients consisted of severe pain in the bowels, accompanied with tenderness on pressure. In another, and that a fatal case, the patient had been at her usual work during the day, in her usual health, and on getting into bed at night felt *lame*, this being the first symptom of fever. The tongue during this stage was commonly moist, with a thin, yellowish or brownish coat; in some cases it was red and clean from the beginning. There was in many instances as much thirst at the first as during any stage of the disease. Diarrhœa in this early period was occasionally present. As the disease went on, almost every possible variety in the progress, changes and development of the different symptoms was exhibited.

The headache which was one of the most constant symptoms of the access gradually diminished in severity, and disappeared in the course of a few days. In a few instances it was more obstinate, and continued for a longer time. The same remarks are true of the pains in the back and limbs. I think most of the patients complained more of pain in the legs than in the arms. Delirium was present in a considerable portion of the cases. This was commonly partial, and of a moderate character. In most cases the patients knew those about them, and when questioned would answer correctly. Attempting to get out of bed was not unfrequent. In some, even of the fatal cases, there was not the slightest perceptible alienation of mind during the entire course of the disease. In two or three instances this symptom was present as early as medical aid was called; more usually, however, it came on later. Sluggishness of the mind and the senses, with more or less stupor, was a frequent condition, but profound coma was seen only in one or two patients. A moderate degree of intolerance of light and sound was pretty common; sometimes there was dullness of hearing. The sleep was generally interrupted and unrefreshing; in a few of the milder cases it was not much affected. Muscular tremors, particularly about the wrists and fingers, were occasionally present, although this was far from being generally true even in the fatal cases. Picking at the bed clothes, and pulling them over the head, occurred in a few instances. The muscular debility was very great, in some cases extreme. Patients were almost invariably dizzy, and sometimes faint on attempting to sit up.

There was, generally, little or no morbid heat of the skin. In some cases the surface was soft and moist throughout the disease. The head was hot in several patients, where there was severe cerebral affection. There was nothing very obviously marked or peculiar in the character or expresssion of the countenance. The position of the sick was commonly supine.

The pulse was frequent, small and soft. In the early stage of the fever, following the access, in cases where there was a good deal of febrile heat and excitement, it was sometimes undulatory and full, but still very compressible and easily arrested by the finger. I saw more than thirty cases of the disease, and in no one was there the *strong*, *hard* pulse of simple inflammation. In a majority of the patients there were distinct exacerbations or *fever fits*, during which the face became

flushed, and all the uncomfortable or painful sensations increased in severity. These were most frequent in the afternoon, but they occurred irregularly at different times of the day, and in some few instances they were altogether wanting. The respiration generally was somewhat hurried, and had no peculiar character, except where it was irregular, noisy and hissing. I do not know that this was observed in any cases where the patient was not delirious. There was very generally a slight, dry cough. This symptom was more severe in those few cases in which the thoracic affection was prominent.

The appetite was, uniformly, lost. The thirst was in some cases urgent, in others moderate, in others still, absent. Cold drinks were generally preferred, but not invariably. Nausea and vomiting occurred in some of the cases, but in many others they were wholly wanting. The tongue assumed a variety of appearances. In a few of the mild cases it was only slightly covered with a light, moist coat, during the entire course of the fever. In other instances it was clean, red and shining, moist and clammy, or dry and glazed.

Pain in the abdomen was one of the symptoms most uniformly present. This was intermittent and griping, and in several cases exceedingly severe and long continued. Sometimes it was accompanied by diarrhœa, sometimes it was not. This latter symptom was pretty frequently present, but it was far from being invariably so. In a few cases it was urgent and obstinate throughout the disease; more commonly it was moderate and easily restrained; in several instances it was entirely wanting. Some patients were troubled with it in the early stage of the disease, and not afterward; in others it came on late in the disease. The discharges were, generally, watery, of a light yellow color, resembling new cider, and not particularly offensive. In some few cases they were more consistent, of a darker color and more offensive. In two or three cases only, was there hemorrhage from the bowels. Tenderness on pressure was pretty common. It was not generally very acute, and in many cases not felt at all. There was a tympanitic state of the abdomen in most of the severe cases, especially in their more advanced stages. The flea-bite or typhoid eruptions were distinct in several cases where they were looked for.

I have but few words to say about the treatment. General bloodletting was resorted to early in the disease, in some of the severe cases. The two cases in which, so far as I know,

it was most extensively used, were fatal. In these there was severe and obstinate pain in the head. Leeching, especially of the abdomen, seemed to be beneficial in allaying pain and removing tenderness, as did also hot fomentations. Counter irritation upon the abdomen appeared to act favorably in a similar manner. The operation of purgatives where there were prominent abdominal symptoms, more frequently aggravated than relieved them. Emetics were but little used, and when used, without any very obvious effect on the disease that I know of. Calomel was not much resorted to as an alterative. When used it did not produce salivation, and no very evident benefit resulted from its administration. Opium acted kindly and effectually in moderating pain in the bowels, and in restraining or checking diarrhœa. It was pretty generally used in the management of the disease, and I am not aware that any sensible ill effects were in any case produced by it. Quinine, even in the advanced periods of the fever, was illy borne.

There was no evidence that the disease was contagious. Why so many cases should have originated in one mill, I am wholly unable even to conjecture. Most of the patients were sick in boarding-houses, and in most instances there was but one patient in the same house.

As to the mooted question whether true typhus is ever arrested or broken up, that is, *cured*, in its first stage, I saw nothing during the prevalence of the disease in favor of the opinion, that it may be so cured.

I am well aware, that the preceding cases, in reference particularly to their pathological anatomy, are not so fully detailed as they should have been, in order to have derived from them all the information which they were capable of furnishing. Those who understand the difference between the facilities offered in public hospitals and in private practice, for minute and thorough investigations of this sort, will appreciate at once, and without any prompting, some of the causes of imperfection in the foregoing report. Furthermore, I have carefully avoided putting down appearances as morbid which had not evident and unequivocal marks of being so; preferring that the facts should be incomplete and wanting in some of their parts, rather than that they should be false in any. But, perhaps, after all, the deficiences arising from occasional uncertainties in regard to what is or is not the result of diseased action, and from a want, generally, of the experience and ac-

curacy and skill of such men as Louis, Cruveilheir and Andral, provided these circumstances are not suffered to lead us into positive error, may rather add to than take from the interest of these cases. The observations are made under the same relatively unfavorable circumstances in which most of us in this country are placed, and if they serve to stimulate some of the members of the profession to avail themselves more earnestly than they have been wont to do, of even such facilities for pathological researches as their own private practice may furnish them, one purpose at least of these papers will have been accomplished. It is too late in the day to question the immense importance of pathological anatomy. It is one of the chief elements of the complex problem of disease, and one which has only very recently begun to to be properly estimated. The morbid anatomy of the diseases of our own country is yet almost entirely unknown, and how far the appreciable lesions correspond with those of the eastern hemisphere, remains, for the most part, yet to be ascertained. Dr. Horner says, that he can find only two or three reported examinations of one of the most common and fatal diseases of our climate, the cholera of young children. Since this paper was commenced, I have looked over a consecutive series of American Medical Journals, extending from the year 1797 to the present time, and I have found only *five* reported cases of the pathological appearances in typhus fever. Three of these were published in Vol. II, of the Magazine, by Dr. Hale, and the other two are contained in a late number of the American Journal of Medical Sciences, reported by Dr. Gerhard. The Medical Colleges of the United States ought to introduce this subject as a distinct and prominent department of their courses of public instruction.*

* Since the preceding paper was written, I have read a pamphlet of eighty-six pages, entitled, '*Some account of the Fever which existed in Boston during the autumn and winter of* 1817 *and* 1818, *with a few general remarks on Typhus Fever. By W. Gamage, Jr. M. D.*' This little work contains histories of three post mortem examinations. In one of them no mention is made of the abdominal organs, and in the other two, they are stated to have been free from disease. Whatever else the disease described by Dr. Gamage may have been, it is abundantly evident that it was not the true typhus of modern authors. This circumstance is sufficient to deprive the pamphlet of all value and interest in connexion with the pathological anatomy of American Typhus. Besides, we are not told how carefully or minutely the intestines were examined, and even in relation to the brain and spinal marrow, which excited the principal share of attention, it is pretty clear that some conditions of these organs are put down as morbid which would not now be so regarded.

Art. II. — Profluvium Vaginale.

[Communicated for the Medical Magazine.]

By Isaac G. Porter, M. D.

Most systems of nosology recognize the existence of hydrops uteri, a point which modern observation and research is disposed to question. If the following case, designated under the generic term of profluvium vaginale, be so far peculiar as to render some of its details interesting to your readers, you are at liberty to publish it. The subject of it is a married woman, 27 years of age, of delicate constitution, — the mother of four children, the youngest born October, 1833, after an easy natural labor. In April she was seized with catarrh, followed by pleuritic symptoms, and a severe cough.

June 3. — She first applied for advice, her friends fearing incipient consumption. Soon after a deap-seated pain in the right hypochondrium appeared, together with enlargement of the liver, and much tenderness on pressure. As this affection and also the cough subsided, much thickness and paucity of urine manifested itself. This soon diminished under the use of digitalis, squills, calomel and opium, but was followed by evident symptoms of abdominal dropsy. Various diuretics, and saline and hydrogogue cathartics were administered, — the former usually failing in their operation, while the latter either had no effect upon the distention, or with a partial diminution, produced the most alarming prostration. Tonics were administered to prevent a re-accumulation, but with a return of the hepatic derangement. During the co-existence of the two affections, tr. iodine, as a diuretic, was found extremely efficacious after having first resorted to small doses of calomel.

June 26. — She informs me, that a few days since, there was a small discharge of bloody serum from the vagina, which came in a single gush. Recently she has had much distress just above the sacrum, and very severe bearing down pains. To-day, there was another discharge from the vagina, — inodorous, nearly colorless, and in quantity full a pint. From the severity of the shock, or the sudden removal of the 'stimulus of distention,' she nearly fainted. Nothing like a membrane followed. Lower portion of abdomen very sensible to pressure, but diminished in size; high febrile action; urine red, and coagulable by heat.

July 12. — After the last discharge there was constant, though moderate, flooding for nearly a fortnight. During lac-

tation, if we except the three first months, she has always had the catamenia, and as often as once in two weeks, — hence the flooding gave little alarm, and was for some time concealed. She has now the sensation of something in the pelvis, which induces the most urgent bearing down pains. Fearing a prolapsus of the uterus, an examination was made, but none was apparent. The os tincæ was found prominent, a little dilated, yet resisting like cartilage. The uterus suddenly distended from the os tincæ towards the rectum, and an obscure feeling of an irregular tumor was in the same position. The parts were so excessively tender as to resemble the irritable uterus.

July 14. — There has been much difficulty of passing water of late, and to-day, a large quantity was withdrawn by the catheter. I may here anticipate so far as to say, that this operation became necessary, once, twice, or thrice, each day, for the succeeding six weeks. Contrary to my direction, she would occasionally make efforts to relieve herself, but, of that which passed, according to her own confessions, the half was blood.

July 23. — Of late there have been evident signs of peritonitis. The tenderness of abdomen is so great, that the weight of the bed clothes can scarcely be endured. Pains in the back, and the bearing down sensation still continue. Examination detects considerable prolapsus of the uterus.

Aug. 1. — During a painful expulsive effort last night, another vaginal discharge took place, — sufficient in quantity to wet eight folds of a sheet. The catamenia, which had continued two days, ceased last evening, and the discharge was not tinged. Patient is much relieved, and abdomen diminished in size. Sensibility of uterus greater than ever, as found by examination.

Aug. 10. — Since the last date the patient has passed water freely by catheter, — a decoction of the root of an indigenous article, the Asclepias syriaca, proving effectual after many other diuretics had failed. After imprudent exertion and taking cold, a relapse ensued, and she was as much distended as at the full period of pregnancy. Last night there was another eruption of serum from the vagina, so profuse as to wet a folded sheet thoroughly in every part. The water had an offensive odor, or, as she expressed it, ' smelt feverish.' It was without color, and came away in two distinct floods, rapidly succeeding each other, yet both attended by a propulsive effort. There has been of late much bearing down pains, and the same dis-

tress above the sacrum. In no instance has anything like a membrane followed the discharge. Temporary, but extreme prostration always ensues. The abdomen is now much less distended and tender than for weeks. The distension which remains is confined to the right side of the abdomen, and a moderately firm tumor, apparently larger than an orange, is perceptible amid the swelling in the right portion of the hypogastric region, — slightly moveable and not peculiarly sensible to pressure. Tr. iodine again resorted to, — also, one of the following pills four times a day, —ext. conii ʒ iss. — carb. ferri ʒ ij. m. f. pil. No. III.

Aug. 25. — The distention of the abdomen having almost entirely subsided, I resolved to ascertain whether the prolapsus, which had now become extreme, could not be remedied by a pessary. This has been often thought of, but rejected, owing to the great distention of the abdomen, and the extreme sensibility of the uterus. After reducing the prolapsus, a pessary was introduced, but could not be endured. Finding, however, that the uterus still maintained its place, the horizontal position was enjoined, the urine as previously being drawn off by the catheter.

Aug. 30. — Appetite has returned, and she is beginning to regain her health and strength. The pain in the back, which has been long diminishing, has ceased, and she passes water without difficulty.

Feb. 11, 1835. — Owing to exposure to cold, Mrs. S. has had a slight return of hepatic inflammation, followed by her former dropsical complaints. The distention was chiefly confined to the right portion of the hypogastric region, where there was much tenderness on pressure, — bearing down pains severe, and following each other at regular intervals, — pulse 120. This affection soon yielded to digitalis, calomel and opium, — the swelling in the right hypogastric region nearly disappearing with the hydropic symptoms. She informs me that since the middle of September, her health has been tolerably good, — that two months since she had another discharge from the vagina, and six weeks after, another, each consisting of more than a pint, and each accompanied by intense bearing down pains, and preceded by much distention in the right portion of the pelvic region, which subsided with the discharge.

Is the foregoing a case of solitary hydatid? For reasons of her own, our patient had thought herself pregnant for two or three months previous to the first eruption. Nothing, however, like

a membrane has, in any instance, followed the discharge. Constipation and retention of urine existed, but compression produced by any other cause than hydatids, would have a similar effect.

From the enlargement in the pelvic region, may we suppose that dropsy of the right ovarium existed along with abdominal dropsy? The question may subject us to the charge of credulity, and we confess the 'quo modo,' by which the water could be discharged, does not appear. Munro, however, relates a case (referred to in James' edition of Burns, Vol. I.) of a woman who died of ovarian dropsy, and who, previously, had been relieved by a discharge of the dropsical fluid, per vaginam.

Or, is it an instance of the discharge of fluids, which had been 'retained in the uterus in some inexplicable way.' Such cases are alluded to by Denman, Dewees and others, and are not very rare, the writer having now a patient, who is occasionally subject to sudden burstings of serum from the vagina, but without any of the attendant symptoms of the case above detailed. It will be recollected, that in one instance, the catamenia ceased but a few hours previous to a discharge, thus showing that there could be no occlusion of the uterus, or, that the fluid must have been contained in a cyst, that has never been discharged.

New London, April 26, 1835.

EDITORIAL NOTICES.

Medical Prize Essay.

The proprietors of the Magazine, determined to employ all the facilities which such a journal affords for the encouragement and reward of literary accomplishment in the members of the medical profession, hereby offer a Prize of fifty dollars for the best Medical Essay, consisting of not less than fifteen, nor more than thirty octavo pages, which shall be offered on the following conditions.

1. The subject of the essay may be chosen by the writer, from among the various topics of medical science, literature, practice and ethics.

2. Every competitor must deposite his manuscript with William D. Ticknor, No. 133 Washington-Street, Boston, post paid, on or before the first day of January, 1836, — accompanied with a sealed packet bearing the name and address of the writer.

3. A committee of five disinterested and accomplished physicians will be selected to examine the essays, and adjudge the premium.

4. The successful essay will be published in the Magazine, and a copy of it sent to every medical institution in the United States, bearing the names of the author and of the gentlemen who acted as judges.

5. All the essays offered for the prize shall be at the disposal of the proprietors of the Magazine, who may publish them or any of them, as they may judge best; but the letters containing the names of the unsuccessful competitors shall be destroyed unopened, as soon as the decision of the judges is made.

☞ Our cotemporaries of the medical press, as well as other journals approving the project, are respectfully requested to give the above notice an insertion in their respective publications.

Boston, June 1, 1835.

Massachusetts Medical Society.

The annual meeting of this truly respectable and useful institution, took place, according to the provisions of the by-laws, on Wednesday last, at the Athenæum in Pearl-street. The unusually full attendance of the Fellows from various parts of the State, attested a commendable interest among them in the concerns and proceedings of the Society, and a deeper sense than formerly of the privileges and pleasures which such an association has for those who can understand in what the former consist, or are sufficiently social and refined to participate in the latter. The regular business of the meeting, consisting of the election of councillors, receiving reports of the various executive officers, &c. was conducted with a prevailing spirit of harmony and unanimity.

At one o'clock, business was suspended for the purpose of attending to the anniversary address from Dr. Bigelow. This performance was truly an admirable one; and in attempting

to characterize it more particularly, we could not do justice to our own estimate of it, without indulging in eulogia, which, to such of our readers as were not so fortunate as to be present, would certainly be thought extravagant flattery.

The author commenced with a brief, but very just and beautiful biographical notice of three distinguished Fellows* who had died in the course of the past year, and very naturally passed to some impressive reflections on the deaths of medical men.

After some excellent remarks on the comparative progress of diagnostic and therapeutic knowledge, containing a gentle, and perhaps unintended, but very timely censure on a certain modern 'school,' which we thought was too highly complimented in a subsequent part of the discourse, he addressed himself to the main purpose of it; which was to present to the society some theoretical views, and practical observations on a class of diseases, named by the writer '*self-limited diseases*,' and defined to be 'certain morbid processes having a definite and regular result,' the progress and termination of which are not materially influenced by any medication which the healing art, in its present state, can apply.

The speculations were highly ingenious, original and interesting, and the practical suggestions valuable alike in their relations to science and humanity.

The conclusion of the address was a pertinent and impressive 'improvement of the subject,'—presenting discriminating, sober and encouraging views of the actual capabilities of our art, and earnest exhortations to all who practice it, to employ with assiduity the best methods of study, in order to multiply its resources and extend the sphere of its therapeutic influences.

After the discourse, the annual business of the Society being completed, they walked in procession to Faneuil Hall, where a dinner had been provided, which, although not quite so inviting as on some former occasions, was sufficiently acceptable to appetites rendered keen by unusual abstinence.

The festivities of the anniversary were concluded at the house of the President, where the Fellows enjoyed an agreeable reunion in the evening, and were entertained with the accustomed taste and hospitality of their host.

Owing to some circumstances beyond the control of the government of the Society, they were unable to furnish the expected volume of 'Practical Medicine,' at this time,—in

* Drs. Dixwell, Oliver, and Starkweather.

allother respects the meeting appeared to be a most satisfactory one to the Fellows, and was full of promise in regard to the future improvement, respectability and usefulness of the institution.

At a meeting of the *Councillors* on Thursday morning the following officers were elected for the *Society*, viz.

John C. Warren, M. D., *President.*
Nathaniel Miller, M. D., *Vice-President.*
Enoch Hale, M. D., *Corresponding Secretary.*
John Homans, M. D., *Recording Secretary.*
Walter Channing, M. D. *Treasurer.*
David Osgood, M. D., *Librarian.*

Massachusetts General Hospital.

The medical staff of this institution has lately been re-organized, and some very commendable changes introduced in the appointment of physicians, and in the relations which those officers respectively sustain to the hospital, and to each other. There are now three physicians, — Drs. Jackson, Channing and Ware, — with equal rank and responsibility, excepting seniority in the period of service, each of whom performs a four month's tour of independent duty.

An Assistant Physician is also appointed by the Trustees, with *special* duties, — visiting patients who are candidates for admission, performing auscultation, dissections, &c. To this office Dr. John B. S. Jackson has been chosen, — and a more suitable individual could not have been found, either on the ground of special qualifications for the place, or of meritorious qualities in general, as a physician and gentleman.

Obituary.

Died suddenly, at his lodgings in the Norfolk House, near Boston, where he was residing on leave of absence, Dr. Gerard Dayers, one of the oldest surgeons of the United States' Navy.

Dr. Dayers was a native of Brussels in Belgium, — was educated, we believe, at Leyden, fled to this country to avoid conscription for Napoleon's army, and entered the medical staff of our navy, in a very humble capacity, at a time when this important arm of our national defence was in its infancy.

The intelligence and fidelity he manifested in the care of the sick, recommended him for the commission which he held at the time of his death, and in the course of time placed his name near the head of the list of surgeons. He was a gentlemanly and generous man, of kind feelings and polite manners. He had seen much service, was universally esteemed by his shipmates, secured a high degree of their confidence in his professional intelligence and skill, and of their respect and approbation by his assiduous attention to the duties of his department.

*** The Northampton Hospital shall be noticed in next number.—Dr. Gallup's paper is gratefully acknowledged.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

SELECTED ARTICLES.

ART. I. — ON THE TREATMENT OF TYPHUS FEVER BY REPEATED PURGING.

HAMILTON, of Edinburgh, was, we believe, the first physician who insisted on the efficacy of purgative medicines as a principal means of cure in typhus fever. His doctrine has been adopted by many practitioners; but by others, and particularly by the French, it has been combated as a method which is incompatible with the pathology of that affection. In order to afford means for deciding this question, important for the value of the truth which affirmative decision may establish, and interesting from the degree of attention which the subject has so long excited, M. Piedagnel undertook a series of experiments at the Hotel Dieu, which were calculated to develop an answer to it, and he certainly has conducted them in a manner which is well designed for determining the true value of the purgative method. All the typhoid fever cases which he treated, were, without any distinction of symptoms, period of the disease, &c. submitted to the action of purgatives during *the same season.* The number of patients experimented on was large, and no other active remedies, such as bleeding and leeches were applied, these being avoided in order that the result might be as positive as possible. We now present our readers with an analysis of the paper on this subject, which M. Piedagnel has published in the 13th No. of the French Gazette Médicale,

the paper having been read at the Academy of Medicine on the 24th of March.

The author distinguishes four kinds of typhus fever, viz.

1st. Simple typhus.

2nd. Adynamic typhoid fever; to the common symptoms are superadded those arising from a considerable alteration of the intestinal canal, consisting in numerous ulcerations of the mucous membrane: here the abdominal affection becomes prominent, and the patient at the end falls into a state of adynamia.

3rd. Ataxic typhus: here the cerebral symptoms predominate; there is a peculiar delirium, pain in the head; the senses are more or less perverted, and the muscles contract, &c.

4th. Putrid typhus (fievre typhoide foudroyante): this form can only be likened to the effects of poisoning; in three or four days the patient dies, and the autopsy does not reveal any organic alteration.

Such are the very different forms of typhus fever which M. Piedagnel has submitted to the following treatment.

On the day after the patient's reception in the Hotel Dieu, purgatives were immediately administered, when the symptoms were severe; if not, he was allowed to remain quiet for one or two days. When the treatment was commenced a purgative was given every day, or every second day, according to circumstances. The patient took for drink, water sweetened with syrup of currants, and his diet consisted of three *bouillons* (weak broth) per day. This regimen was invariably pursued; and the modifications of the treatment were very simple. Thus, when a patient went naturally to stool, a slight purgative only was administered. In cases where a gentle purgative produced no effect, a stronger one was immediately given. The rumbling sound of the bowels, and particularly the appearance of meteorismus, were an indication for the employment of purgatives still more energetic. These means usually produced six to ten stools in the twenty-four hours. In some cases the patients were purged only once or twice during the whole course of the disease; in others ten or twelve times; but in general three or four purgative doses were sufficient. The state of the abdomen never furnished any contra-indication; thus a severe pain in some one point of the abdomen generally yielded to the first or second purgative, and never resisted the third. The purgative medicines employed were, Eau de Seid-

litz, from two glasses to one or two bottles ; a solution of one or two ounces of Epsom salts ; castor oil ; calomel ; and croton oil.

On comparing the results obtained by M. Piedagnel with those obtained in the different hospitals of Paris, they certainly present a very favorable aspect.

From the 1st of June 1834 to the 1st of March 1835, no less than than one hundred and thirty-four cases of typhus fever were treated by the author at the Hotel Dieu, all exhibiting in a greater or less degree the peculiar expression of the face, state of the mouth, rales muqueux and sibilant, diarrhœa, pain of abdomen, petechiæ and sudamina, which distinguish that affection.

The cases may be arranged under the following categories :

1st. *Simple Typhus.* — Sixty-nine cases. No death.

Mean duration of the disease .	$20\frac{1}{2}$ days.
Mean duration of treatment . .	$13\frac{1}{2}$ "
Average number of purgatives .	$3\frac{1}{2}$ "

2nd. *Adynamic Typhus.* — Forty-nine cases. Cured, thirty-nine; dead, ten.

Mean duration of the disease . .	$17\frac{1}{2}$ days.
Mean duration of treatment . .	$10\frac{1}{4}$ "
Average number of purgatives .	3 "

3rd. *Ataxic Typhus.* — Sixteen cases. Cured, seven ; died, nine.

Mean duration of the disease . .	29 days.
Mean duration of treatment . .	19 "
Average number of purgatives . .	$6\frac{1}{3}$ "

Hence in 134 cases, we find 115 cured, 19 dead, giving the proportion of mortality as 1 to $7\frac{1}{19}$ of the cases treated. But amongst the 19 deaths M. Piedagnel enumerates, two which ought not strictly to be included ; one, cured of the fever and on full diet for four days, was cut off by a double pneumonia ; the other, also cured, contracted the small-pox, which terminated in death. If we abstract these two cases, the general mortality will be very nearly 1 to 8. For adynamic typhus the proportion is 1 to $4\frac{9}{10}$, — the author of the memoir says 1 to $3\frac{9}{10}$, but he is evidently mistaken. Finally, he enumerates amongst the ataxic cases the only two examples of *fievre foudroyante* which presented themselves in the course of the year ; hence in this severe form the cures and the deaths may be accounted exactly equal.

Let us now compare these proportions with the result of MM. Chomel and Bouillaud at the Hotel Dieu and La Charité:

Hotel Dieu.

	Patients.	Dead.	
In 1830	27 —	8 —	1 to 3.375
1831	56 —	16 —	1 to 3.5
1832	23 —	5 —	1 to 4.6
1833	30 —	10 —	1 to 3

At La Charité.

	Patients.	Dead.	
In 1834	31 —	5 —	1 to $6\frac{1}{6}$

Thus in the practice of M. Chomel the mortality is as 1 to 3.4871794. In that of M. Bouillaud, or rather in the small number of cases reported by him, 1 to 6.2; and in that of M. Piedagnel as 1 to 7.0526315789473684 21. (The decimal runs to this great length before it begins to repeat.)

Hence the author concludes that so far as regards the mortality, the treatment of typhus fever by purgatives is superior to any other practised at the present day; but it is extremely fatiguing for the patient, and requires extreme care on the part of the physician. The most frequent complications with which it may be reproached, are inflammations, which sometimes determine death; but, on the other hand, we very rarely find extensive gangrene, abscess, meteorismus, &c., and the convalescence is probably less prolonged. — *London Lancet.*

Art II. — Pneumonia of Children.

Translated from the Repertoire Annuel de Clinique Medico-Chirur. Deuxième année. Paris, 1835.

When frequenting the Hospital des Enfans, one feels astonished that Hippocrates, the most profound observer among the ancients, has said that children were not affected with acute diseases of the chest, and they did not appear before the age of puberty. Boerhaave, Cullen, Sauvage, Pinel, Stoll, Frank, Rosen, and especially Underwood, Chambon and Capuron, who have published treatises professedly on the subject, have not even mentioned this kind of affection in children. Much

credit, therefore, is due to Dr. Constant for having carefully studied these diseases, which, as he states, are much more frequent in children than in adults. Thanks to the precious modes of investigating the thorax, made known by Laennec, and to the researches of pathological anatomy, this truth is demonstrated beyond a doubt. Peripneumony affects not only children at the breast, but also appears frequently from the period of dentition to that of puberty. Of three hundred and seventy patients with acute diseases, Dr. Constant has observed seventy-two cases of pneumonia, which are divided as in the following tables:

From 2 to 4 years	24	January	8
4 to 6 "	10	February	7
6 to 8 "	14	March	9
8 to 10 "	7	April	18
10 to 12 "	5	May	16
12 to 14 "	5	June	14
14 to 16 "	7		72
	72		

Thus about one fifth of the patients admitted into the hospital were affected with pneumonia, which is the proportion generally observed by Dr. Guersent. This affection presents in children the same varieties in the part affected, and the degree and complication of the malady, as in adults. Taking into view all these forms and these varieties, Dr. Constant divides pneumonia into primitive and consecutive. This distinction is very important in a practical point of view, since the rules of treatment are founded on it.

Symptoms of Primitive Pneumonia. — An attack of pneumonia in a healthy individual, presents different characters, according as it affects children in early life, or appears in those near the period of puberty. In children from eight to sixteen years old, it is generally developed from the influence of atmospheric causes, sometimes, however, without any determinate cause, and presents nearly the same symptoms as in the adult. Thus there is generally severe pain in the affected side, dyspnœa, frequent cough, expectoration which is sometimes bloody and sometimes purely catarrhal: when blood is drawn from a vein, it is buffy, respiration is as through a tube, and there is bronchophony. When the inflammation is properly treated soon after its commencement, it is resolved very quickly.

Treatment. — M. Constant has carefully observed the good effects of general bloodletting, which must be regulated by the intensity of the disease and the strength of the patient. He thinks that modern physicians neglect too much the employment of general bleedings in diseases of children; they commonly depend on local depletion. They must not forget, however, that a parenchymatous organ is affected, and that general depletion not only weakens the inflammatory orgasm, but also diminishes the quantity of blood which passes through the vessels in a given time. After general bleeding, leeches and cups must be applied to the painful part. Their action should be assisted by diluents, as infusions of violet, barley water, &c., taken warm, and sweetened with the syrup of gum arabic, or of marsh mallows. If the pain continues, M. Constant recommends the application of a blister, and of an antimonial plaster to the affected side of the thorax. The preparations of antimony have been found as advantageous in these cases as they are in men: they have never, however, been employed until after bloodletting. Tartarized antimony prescribed, according to Rasori's method, seems to expedite the resolution of pneumonia in some cases. This remedy has been administered in orange flower water, to which two drachms of syrup of diacodium are added. The dose was four grains the first day, and sometimes twelve grains were prescribed the first twenty-four hours. When there was evidence of gastric derangement, tartarized antimony given, so as to produce vomiting, has been used with success.

M. Baudelocque, physician of the female department at the Hospital des Enfans, has derived great benefit from the white oxyde of antimony, which he prescribes directly after bleeding: of this, he administers from twenty grains to a drachm and a half in twenty-four hours. This drug promptly resolves severe cases of pneumonia, and as it produces neither vomiting nor purging, it is much superior to tartar emetic. Kermes, when given in full doses, has been known by M. Constant to derange the digestive organs.

The remarks hitherto made apply particularly to children who are more than eight years of age. We have now to speak of the therapeutical indications in the pneumonia of young children. In these cases, the diagnosis becomes much more difficult, as the expectoration is absent in young children: they do not indicate the pleuritic pain, or rather they refer it to organs more or less remote from the seat of inflammation.

We must also guard against considering as primitive symptoms the cerebral phenomena which appear, and which a scientific physician will regard as sympathetic: cough, dyspnœa, and fever should excite the attention of the physician, and induce him to examine the chest by percussion and auscultation, which will often confirm the suspicions excited by these general symptoms. At the Hospital des Enfans, a vein is opened in all those affected with pneumonia who are more than three years old. The practice of taking from four to six ounces of blood has been very successful. Cupping is preferable in children from one to three years of age, because its action is more certain, and the little patients are less irritated. In children at the breast, two or three leeches may be applied to the affected part of the thorax; in most cases the morbid symptoms are relieved by their application. In children affected with pneumonia, if depletion be carried too far, the inflammatory symptoms diminish; but from the want of reaction, the phleginasia becomes subacute; this continues indefinitely, and sometimes passes to the tubercular state.

Children ought not to be dieted too strictly. As soon as the fever begins to diminish, the patient should be allowed to take a little chicken water. In children who are affected with pneumonia during the period of lactation, M. Constant thinks it sufficient for them to nurse less frequently, and that the mother should take diluents.

The application of the leeches is favored by placing warm emollient cataplasms on the chest. In Hospital des Enfans, warm baths are used daily with much success, and the children experience much benefit from them. We regret that many men of the world, and even physicians, are so prejudiced that this powerful remedy is neglected in acute affections of the chest; a remedy which we have found very beneficial. Large doses of tartarized antimony ought to be strictly forbidden; in very young children, they sometimes cause obstinate vomiting and diarrhœa; the remedy has sometimes been tried, but it was soon found necessary to suspend it. Ipecacuanha, on the contrary, administered in the form of powder and syrup, is very useful as an expectorant. — *U. S. Med. and Surg. Jour.*

ORIGINAL ARTICLES.

Art. I. — Physiology of the Schneiderian Membrane.

By B. F. Wing, M. D.

Read before the Boston Society for Medical Improvement, April 13th, 1835.

Gentlemen, — I have selected, for the subject of my remarks this evening, the schneiderian membrane. Of its location and anatomy it is unnecessary to treat. I shall limit myself to its physiological and pathological relations, these being of a somewhat doubtful character. It possesses two kinds of sensibility. One it holds in common with all parts of the body. The other is peculiar in its nature, and is in relation to certain properties of such substances as are brought in contact with it. For the latter it is supposed to be indebted to the olfactory nerve, with which it is bountifully supplied. The distinction is manifest to every individual, but more particularly so in what are called, in common parlance, colds of the head, or coryza, when the well known sense of smell becomes impaired or nearly suspended, while the sensibility of this organ to mechanical impression is greatly increased. To the healthy condition of the olfactory nerve we are greatly indebted for the pleasures of the table.

The following experiments, which can be easily repeated by any one disposed to try them, will show that many sensations which are usually referred to the tongue, are in reality perceptions of the pituitary membrane.

Experiment 1. — A student of the profession consented to become a subject for the trial of his taste in discriminating medicinal substances. He was accordingly blindfolded, and his nose closed. In this condition he received a small quantity of tinct. cinchonæ, (its flavor being particularly offensive to him) he immediately declared it to be bitter, and supposed it to be laudanum. His disappointment on being put in the possession of his senses can easily be conceived.

Exper. 2. — The subject of the first experiment was again desirous of exerting his power of discriminating between tastes. After being prepared as above stated, a solution of sugar was used, its sweetness was readily discovered, but in its peculiar flavor he was again disappointed.

Exper. 3. — Was tried upon a person entirely ignorant of its object. Powdered columbo was introduced into the mouth of the individual after he was prepared in the usual manner, its bitterness was perceived. Of its peculiar qualities he was an incompetent judge.

A similar experiment was tried with the tinct. assafœtidæ; a burning sensation was perceived which is common to all spirituous preparations; but its peculiar and strong flavor he could not detect.

Many other experiments were tried without differing in their result.

No one who will take the trouble to repeat experiments upon this subject, will hesitate to refer flavorous sensations to the pituitary membrane, yet he will still claim the possession of a sense of taste, though it is much more limited in its range than has usually been supposed. Thus it is the province of the tongue to perceive bitter and sweet, which are real tastes, while no other organ, however sensible to mechanical impressions, can perceive these properties.

Let us examine the relation existing between this and other organs, or the power this organ, when affected, possesses of producing in remote parts, similar sensations and affections, modified according to their organization and function.

The following experiments will show our liability to consider some prominent organs as *primarily* affected, whereas they are only called upon to sympathize in the general affection produced by an impression first made upon some part entirely overlooked.

Exper. 4. — This was tried to ascertain the susceptibility of the individual, (the subject of the experiment) to the action of tobacco, as it is commonly used in the form of cigars. In thirty minutes after having commenced smoking slight nausea was felt; in forty, vomiting supervened, and in fifty, the vomiting and other effects usually attendant upon the use of tobacco increased to such a degree, that its use was suspended. It required several hours to restore the experimenter to his usual state.

Exper. 5. — This experiment was tried to ascertain the importance of the schneiderian membrane in producing the effects of tobacco, either of a pleasant or an opposite character. It was tried upon the same individual, after having closed his nose carefully so that no current of air could pass through it. The substance of which the cigars were composed could not be detect-

ed by the individual, when thus prepared, without the aid of other senses than that of taste. After smoking one hour, slight burning of the fauces was the only uncommon sensation perceived. At the expiration of an hour and a quarter, very gentle emesis took place, unaccompanied by any nausea or lassitude, removing the burning mentioned above. The experiment was continued one hour and fifty-five minutes without any further effect. On removal of the bandage, the person was immediately made sensible of the substance he had used.

Exper. 6. — A strong decoction of tobacco was kept warm over a dish of ignited charcoal, and an individual inhaled the vapour through his mouth, having previously secured his nose, one hour and thirty minutes without any inconvenience.

The same experiment was tried, differing only by an exposure of this membrane. In twenty minutes nausea was produced, followed soon by vomiting.

Substances applied immediately to the pituitary membrane, sometimes occasion symptoms of grave disease.

A case was related to me by a distinguished physician, where a partial paralysis of the organs of articulation was occasioned by the use of *snuff*. These symptoms excited much anxiety until the real cause of them was discovered. The habit, however, had become so strong that the person preferred an impediment to his speech to a deprivation of his accustomed stimulus. In a second case, the physician was consulted for general tremor and paroxysms of violent palpitation of the heart. After considerable investigation, the cause of these affections was found also to exist in the inordinate use of snuff. Its use was immediately abandoned, and the symptoms very readily subsided.

Ought not this membrane to deserve more consideration as the avenue through which the causes of disease make their attack? Its situation necessarily exposes it, in a peculiar manner, to all causes that are conveyed through the medium of the atmosphere.

In many instances, where the exposure to exciting causes is very brief and their effect sudden, is it not more rational to suppose that they affect primarily this nervous membrane, rather than that they are admitted through the skin, where, to say the least, absorption is slow, if the cuticle is perfect, or through the lungs, or stomach?

Dr. Good mentions a case where typhus was communicated by smelling a rose used to decorate the dead.

Persons in apparent health, passing rapidly through diseased districts have received disease.

Cases have sometimes occurred when patients have even complained of the first effects of disease being manifested in this membrane.

A fisherman, apparently well, on landing from a very healthy voyage, passed with his companions, in the night, a house in which a number of individuals were sick, without his knowledge; he alone perceived an unpleasant odor arising from it, of which he spoke to his companions. He soon complained of nausea and oppression at the stomach. From this time he grew sick, and finally died of the disease existing in the house which he passed.

A person having the superintendence of a dissecting room, in which an attempt was made to preserve a number of bodies for future use, was necessarily occasionally exposed for a few minutes, to the unpleasant odor arising from their partial decomposition. In this individual's constitution there was a predisposition to intermittent. In almost every instance of exposure, however short, a chill and fever would be the consequence, although days would pass, unless thus exposed, without any indication of disease.

If it is established, that deleterious influences upon the economy are produced through the medium of this membrane, it is evident that it will afford an opportunity of applying means for counteracting disease.

In some cases this part remains quite sensible, while others are in a measure torpid.

Sometimes we can apply medicines to this membrane, when all other avenues to the introduction of remedial agents are partially closed.

In syncope it has been an almost universal practice to stimulate the pituitary membrane and arouse the general system through its agency.

Stimulants when applied in equal quantities to this part, are much more efficient than when received into the stomach.

In coma the practice has been attended with some success.

I will not attempt to enumerate the cases in which this practice may be beneficial, or the medicine suitable for use. If such practice is found practicable, the good sense of each individual of this society will decide these points.

Art. II. — A Case of Spermorrhœa Entonica simulating Atonic Apoplexy.

By M. F. Colby, M. D .

[Communicated for the Medical Magazine.]

Mr. A., the subject of the following case, died in September last, aged 41. As the history of it presents the most deplorable consequences of violent local erethism of the genital organs on the body as well as the mind, I have thought a succinct view of it may not be uninteresting to the readers of the Magazine.

Mr. A. married at the age of 23; at that time he was of spare habit and in good health, which he enjoyed for the first four years, at the end of which he began to suffer at times from pain in stomach, with nausea and frequent spitting. This continued to afflict him for two years, in the course of which he frequently took medicine without relief. In the summer of 1822, he for the first time had an attack of stupor, continuing several hours. There was no recurrence of it till the following February, when he was suddenly attacked in the night, and continued insensible till the afternoon of the next day. He was again seized in the month of April while laboring in the field; he, however, recovered so as to be able to walk to the house, but immediately after reaching it fell into an insensible state, and remained so through the day. From this time the fits became more frequent, obliging him to suspend all labor; they were often of six and twelve hours duration. During their access his respiration was stertorous, heat of the surface considerably increased, and he was covered with a copious and offensive perspiration. The salivary glands were violently excited, and poured forth their secretion in a continued stream: it was judged that a pint or more of saliva was thrown off during every paroxysm. On recovering from a fit he complained much of pressure and pain about the head, and often of numbness of the tongue and hands. He had sometimes slight spasms while in a fit, and on two or three occasions they were general. During the winter of 1824 the fits occurred daily. At one time his physician gave him an emetic while in a state of stupor; he vomited and became sensible. In the spring of the same year his case was the subject of a consultation, at which it was deemed advisable to pursue a depletive course; he, therefore, took cathartics occasionally, and was

bled once a week for six months. After the first bleeding he had no fit for three weeks, and they were less frequent for three months, at the expiration of which they returned with equal or greater severity. The ptyalism and fetid perspiration ceased after the bleeding, but he became more corpulent, increasing in weight about twenty-five pounds every year till his death. At this time it was found that eating often would lessen the frequency of the attacks, and that feeding him while in a state of stupor would remove it in the course of half an hour. For this purpose liquid food was put into his mouth, which he swallowed readily if given early. If neglected, his countenance became dark, breathing stertorous, with apparent suffocative choking, and more or less spasm. When spoken to loudly he would answer, but not correctly. Every effort to relieve him failed, until nourishment was given. The autumn after the trial of bleeding, he visited the late Professor N. Smith, at Burlington, Vermont; by whose advice he was put upon a course of pil. hydrargyri, which he continued some time without benefit. About seven years since he consulted Professor Mussey of Hanover, who advised the introduction of a seton into the neck, with issues on each leg, and the internal use of oleum terebinthinæ morning and evening. He commenced with teaspoonful doses, and increased to a common tablespoonful. This was continued until he had taken three half pints. He was considerably debilitated by this course without material alleviation of the fits.

In July, 1830, he consulted me for the first time. From the anomalous character of his case, as well from the failure of the various remedies which had been prescribed, I was induced to enter into a rigid and minute investigation. On inquiring into the state of the genital organs, he expressed a conviction that the peculiarity of his case was in some way connected with a morbid state of those parts. He informed me, that previous to his marriage, he had indulged his sensual propensities, and that since that time he had not been confined to the rigid limits of matrimonial injunctions. He described his sexual appetite as painful, and often mortifying in the extreme, and stated that since the occurrence of his fits he had been so sensitive that the approach or even passing near him, of a female would produce *ejaculatio semenis*. I directed alkalies, laxatives, and the carbonate of iron, with frequent application of cold to the genital organs. From these he received little benefit, and I then advised him to abstain almost entirely from medicine, and to avoid as much

as possible all exciting causes. Since that time the violence of the fits was not increased, and during the last year they were somewhat less frequent. For several years previous to his death his respiration was intermittent during sleep, and Mrs. A. was obliged to awake him several times in the night, and to feed him once or twice. He was also obliged to take food often in the early part of the day, and whenever his appetite was good, he was able to pass the afternoon without an extra meal. This was not the case when his appetite failed, he was then compelled to eat often through the day. In general, he had a good but not a voracious appetite. He chose meat with other solid food at his regular meals, and seldom complained of distress after eating. The quantity of nourishment taken in the interval between meals was small, generally light, and he ate without appetite. Whenever his food was omitted at night, he passed insensibly into stupor, from which he seldom recoved till the afternoon of the next day. His wife thinks that feeding him quite often during the latter part of his life would have prevented his fits in a great measure. The week previous to his death he took medicine from an irregular practitioner for the cure of tapeworm. The prescription contained ten grains of gamboge, besides scammony and calomel. A high state of irritation supervened, which terminated in his death. Mr. A. had six children by his wife, the eldest seventeen years, and the youngest four weeks: at the time of his death he weighed 360 pounds.

A post-mortem examination of the body was made September 5th, 1834, twenty-four hours after death. The following were the principal morbid appearances. Chronic inflammation, with thickening of the mucous membrane of upper part of the stomach. The small intestines exhibited traces of recent irritation, the inner coat being lined with tenacious mucus deeply tinged with gamboge. Mucous membrane of upper portion of colon thickened and ulcerated in several points. Brain: membranes highly vascular; cerebrum perfect, but highly engorged; sections of its substance presenting innumerable small red points. Cerebellum natural. Testes small, shrivelled, flaccid; epididymis somewhat indurated. Body linen deeply stained with seminal fluid, which showed the last act of expiring nature.

What would have been the effect of emasculation in the above case?

Stanstead, L. C. April 8th, 1835.

Art. III. — Remarks on Paracentesis of the Chest for Empyema — with a case.

By J. A. Gallup, M. D.

[Communicated for the Medical Magazine.]

Collections of purulent or sero-purulent matter in the pleura may always be regarded as the consequence of antecedent diseases, the former usually arising from inflammation of the lungs, and the latter from inflammation of the pleura and adjacent tissues. Empyema most frequently occurs in pleuritis not cured, and the morbid effusion is retained in a sac without an aperture. Sometimes, however, it finds its way out between the ribs, or even into the lower part of the trachea, or of the bronchial tubes. In cases of pneumonia the matter usually makes its exit by the bronchi, on account of the accompanying inflammation having united the two free surfaces of the pleura, obliterating the folded sac.

When neither of these events occurs to relieve the subject, it becomes highly necessary that an outlet should be established by art, and there is much reason to believe that the most proper time and mode of doing this, in order to ensure the greatest possible safety to the patient, and in relation to all the pathological conditions, have not always been duly estimated.

Practice of some length of time, and examination of the periodicals of the day, afford evidence of pretty frequent occurrence of such cases; too frequent, indeed, for the credit of the profession, since they always seem to carry evidence of default either in the patient, the nurse, or the physician. Acute affections of the thorax are quite manageable, far more so than those of the abdomen: the tokens of suffering organs are always present, and ought to be read, even if they are not always equally legible. In order to illustrate some views of the writer in relation to the treatment of empyema, it may be proper to relate the prominent phenomena of a case, with a few expositions by way of elucidation.

In April, 1821, I was requested to see Z. L., of Pomfret, Vt., aged about 28 years; farmer. He had been sick about four weeks; illness commenced with symptoms of continued fever, some pain in left side and cough, yet neither very severe. Under a vacillating, undecided course of treatment,

consisting chiefly of calomel and opium, he had gradually grown worse.

At the above time the symptoms were, dryness of the skin, considerable thirst, a moderately coated tongue, shortness of breath, and a pulse of 120 in the minute. He could not lie upon the right side; the left thorax was evidently distended with fluid, as indicated by percussion. Externally, there was infiltration of the cellular tissue under the skin, extending over the left side from the clavicle to the spine of the ilium.

At this time, four physicians being present, question arose as to the most expedient course to be pursued. All agreed in the diagnosis, so far as related to the effusion, and all, with the exception of myself, were of opinion that an operation should be at once performed. To this proposition I demurred, and put in a plea to the following effect, viz. 1st. I had never seen a case of empyema or of acute dropsy do well, in which the patient was operated on with the weight of disease still present, which was apparent in this case. None of the many changes exciting disease had been removed, and a morbid constitutional diathesis still existed. 2d. It is positively necessary, in the first place, to attempt the removal of the empyrectic state as far as possible. 3rd. To effect this object, it was suggested, that one moderate bleeding should be used, and the general warm bath employed daily, with ant. tart. and senega, until perspiration was induced; the bowels to be kept open with Rochelle salts, frictions to be made over the infiltrated region, and other measures adopted which might be useful in promoting the natural secretions, and particularly such as were calculated to excite absorption. The patient to be confined to a restricted diet, avoiding all articles, whether of food or medicine, of a stimulating nature.

The case was then committed to my charge. In two days very material relief was obtained. This improvement went on from week to week, although there was a large burden within. The external intumescence subsided in less than two weeks, and the frequency of the pulse abated. I wished to delay any operation still longer, but some of the advisers still urged its immediate employment. I had occasion to be gone a week or two, and they sent forty-five miles for me in great haste. Yet the operation was deferred six weeks from the time I first saw the case.

The patient now presented the following appearances, pulse 90, skin in good condition, febrile symptoms greatly diminish-

ed; cough not troublesome, till the day before, when he spat up a little fetid matter, which probably found its way into the bronchi from the collection. An incision was now made between the fifth and sixth ribs, equi-distant from the spine and sternum, and a silver catheter introduced. About three pints of seropurulent matter, with some offensive gas came off. A short, elliptical, silver canula was inserted, and stopped with a cork, to prevent any further flow of matter at this time. The cork was removed twice daily, and the discharge continued large for about a month, although the patient had a good appetite and improved. Finally, there was a running by the canula for eight months, the patient doing well without medical treatment He soon gained his natural strength and plumpness, and labored without inconvenience eleven years, having removed during this time to some distance. I have been informed that he has since died from another attack of pulmonic inflammation of about two weeks duration.

Another motive, in addition to those already mentioned, for delaying the operation in this case, was to afford time for the fibrinous exudation, which always forms on the pleura, to become softened and diffused so that it might mix and be discharged with the thinner matter. We thus found an abundance of small flocculi intermixed with the first discharges, so as in some measure to retard the flow.

The old method of puncturing obliquely with a trocar should be abandoned. The trocar never ought to be used in these cases, nor even in hydrothorax. It is impossible to exclude the atmospheric air, and in fact it is proper that it should be admitted in order to keep up an equilibrium. It is not the admission of air that injures, but the wound, and the alterations produced by removing a large quantity of matter from highly inflamed surfaces. In these instances the reflex action on the general system becomes very intense, and this state of things cannot be endured in a system universally diseased, as manifested by a pulse of 120 in the minute. Persons operated on under these circumstances, with an effusion of pus or water, seldom survive the operation more than five or six days. In chronic cases of dropsy either of the chest or abdomen, on the other hand, destitute of a febrile diathesis, we see the operation repeatedly done with perfect impunity.

Other instances might be mentioned, in which the patient did well by adhering strictly to the principles suggested; particularly the case of a young woman with effusion into the right

thorax, in whom a large discharge from the lower part of the chest continued for more than a year, accompanied with a distressing cough and expectoration of much solid matter, resembling hepatized lung. She regained her strength and usual embonpoint, but from the appearance of the chest, the right lung seemed to have been entirely obliterated; the ribs having fallen, and the scapula approaching within half an inch of the spinous processes, answering very accurately to the sixth plate in Laennec's Treatise on Diseases of the Chest.

Lowell, May 25th, 1835.

Art. IV. — A Case of Fracture of the Os pubis Laceration of the Liver, &c.

By C. H. Stedman, M. D.

[Communicated for the Medical Magazine.]

May 21, 1835. — Benjamin Gould, aged 21, a wagoner, while attempting to jump up to his seat, was caught by his left foot under the forward wheel, as the wagon was moving, and was thrown down. The wagon with its contents, weighing ninety cwt. passed over and crushed one foot, and bruised the pubes and adjacent parts severely. I reached him in three or four minutes after the accident occurred, and found him in a comatose condition. Having been bled to a small amount, he soon began to rally, and in a few moments recovered his sensibility, expressed much general uneasiness, but complained chiefly that his foot pained him.

There being no other convenient place for his accommodation in our village, he was taken directly to the United States Marine hospital, where, upon a careful examination, the hypogastric, iliac and pubic regions were found to be much swollen and discolored. No unusual puffiness was observed elsewhere on the abdomen.

The precise nature and extent of the injury within and about the abdomen could not be ascertained. It was conjectured, however, from the enormous weight that had traversed the body, and that, too, in nearly a longitudinal direction; from the unnatural degree of motion about the hips and thighs; and more than all, from the position of the lower extremities, (the knees being turned outward, so that the external condyles of the femur nearly touched the mattress on which the

patient was extended) that the os pubis was fractured in the most serious manner.

From the time of the injury (five o'clock, P. M.) to the hour of his death, (seven o'clock on the next morning,) no re-action took place. The skin was cold: the respiration seemed nearly natural. Vomiting occurred two hours after the accident; nothing, however, was thrown up in addition to the ingesta. In the middle of the night the patient had a small fæcal evacuation. Constant thirst annoyed him exceedingly. About one o'clock, A. M., before the watcher could reach him, he sprang from the bed and fell down, though he had been perfectly rational a minute before, and directly afterwards said he knew not what impelled him to the act. He slept two hours after this. Twenty minutes before death, he had another paroxysm similar to the last, was lifted upon the bed and gradually sunk away in death.

On examination, post-mortem, all the metatarsal bones of the left foot were found broken, and some of them dislocated. Two tarsal bones were likewise fractured, and all were more or less disjointed.

Blood was found effused in great quantity around the pubes. The urethra had been pierced at about two inches from its orifice, so that air blown into this canal passed freely into the cellular tissue surrounding the testes and bladder. The scrotum and penis were also much bruised; and a clean cut of an inch in length was seen on the prepuce. The os pubis was fractured through all its rami. The horizontal rami had the appearance of having been sawn through, so smooth and even were their broken extremities.

Extensive ecchymosed patches were observed behind the peritoneum, and in the mesentery. Ecchymosed points were likewise discovered in the mucous membrane of the intestines. The capsular vein of the left side was cut across, and blood had flowed profusely from it into the abdominal cavity. The kidney of the left side had the appearance of having been pierced in two places to the depth of half an inch, by an instrument similar to a trocar. Blood had also been thrown out into the pelvis of this kidney. The bladder presented spots of ecchymosis on its mucous membrane; and blood derived either from this membrane or from the left kidney was mixed with the urine.

On raising the liver, the gall-bladder appeared quite full of bile. It will seem somewhat singular that this should

have been the case, when it is known that at about an inch from the right side of the gall-bladder the liver was fractured to the extent of three inches in length, and about an inch in depth. It is most probable, however, that the bile found in the gall-bladder was secreted after the accident; as it would seem impossible that the weight which passed over the body should have lacerated the liver, and not have emptied or ruptured the distended gall-bladder.

I regret exceedingly that the haste which the friends of the diseased exhibited to remove the body, prevented any further examination being made. The inspection of the brain and spinal cord would no doubt have proved very instructive.

U. S. Marine Hospital, June 6th, 1835.

COLLECTANEA.

Means of preventing Poisoning. — In the Journal de Chimie Médicale for the present month, we find the following interesting remarks by M. Chevallier on the subject indicated in the above title. The crime of poisoning, and the means of detecting or preventing its commission, have for a long time anxiously occupied the attention of medical men. In France, where the government does not disdain to pay some regard to the public health, the facilities of administering, or, rather, of obtaining possession of, poisonous substances, are very much diminished by a law, most strictly observed, which entails severe punishment on any 'apothecary' who sells a poisonous drug, without holding an express ordinance of permission signed by a physician. He is even enjoined to keep all such drugs under lock and key, in a separate department of his shop, and is required personally to superintend their delivery. In spite, however, of the salutary precaution, the crime of poisoning is not unfrequent in France, and the subject has, consequently, fixed the attention of numerous scientific men, who have endeavored to ascertain whether some particular provision may not be made, some legal measure provided, under which wilful poisoning may be rendered more difficult to commit, and its frequency much diminished. In accordance with that object, M. Chevallier has endeavored by a long statistical investigation to establish, —

1st. What is the number of persons who have been accused of administering poison within a given time.

2d. What are the deleterious substances which have most commonly been employed by them.

3rd. What are the modes by which they have procured the poison.

4th. What have been the causes instigating the commission of the crime.

5th. What has been the mode of administering the poison.

6th. What has the relative proportion of accused males been to that of accused females.

1st. *The number of persons accused.*

According to a list furnished by the Minister of Justice, it appears that in a period of seven years, from 1824 to 1832, the number of individuals accused of poisoning was 273. Of these 171 were acquitted, and 102 were condemned.

2d. *The substances most commonly employed.*

As to the other questions, the author was compelled, in the absence of official documents, to examine the journal exclusively dedicated to law reports, in which, during a similar period of seven years, he found particulars concerning 94 cases of poisoning. An analysis of these shows that, —

In 54 cases the poison was *arsenic.*

In 7 cases it was *verdegris.*

In 5 cases it was *cantharides.*

In 5 cases it was *corrosive sublimate.*

In 4 cases it was *nux vomica.*

In 3 cases it was *fly powder* (an impure arsenic).

In 2 cases it was *nitric acid.*

The remaining cases comprehend various minerals, such as lead, zinc, &c., opium, emetics, &c., one case under each head.

3rd. *Means employed to obtain the poison.*

It was impossible to collect any number of authentic particulars under this head, but in many cases the poison was obtained under the pretext of destroying vermin, or formed a part of the material used in the trade of the criminal.

4th. *Causes determining the crime.*

Of the 94 cases reported by the Gazette des Tribunaux, 83 contain particulars of the cause by which the individual was excited to commit the crime.

In 28 cases it is ascribed to *interest.*

In 24 cases to *licentiousness* (libertinage).

In 15 cases to a *desire of revenge.*

In 10 cases to *jealousy.*

In 6 cases to *mental derangement.*

5th and 6th. *Mode of administering the poison. — Sexes accused.*

In seventy-three cases the poison was mixed with food, as soup, bread, wine, &c., in four with medicines, &c. As to the relation of sexes, in the ninety-four cases alluded to, sixty were males, and thirty-four females: the author says he has examined the tables of crime committed in England without being able to find anything upon this point, which he leaves undecided.

It would appear from the details of a great many cases, that in many instances the victims have been saved by the bad taste communicated to the food by the poisonous substance; and in several others the color of the poison has been an advertisement of the danger. These and several other cases show that the facility of poisoning might be diminished, if it were rendered compulsory to color, or give a flavor to, all poisonous substances which would not be deteriorated by the admixture. This happy idea has been put forward by several persons in France. We find the first mention of it in the 'Dictionary of Medical Sciences.' About ten years ago, M. Berard made several experiments on the same subject, and communicated the results to the Minister of Commerce. He proposed to mix ten parts of Prussian blue with one hundred of arsenic. The commission appointed to examine this project, decided that although calculated to prevent poisoning by accident, it would not completely oppose criminal attempts. In 1823 the Royal Academy of Medicine having to occupy itself on a question of poisoning by the oxide of arsenic, a physician again proposed to color that substance, but no results followed. However, no doubt can be entertained on the propriety of coloring many of the destructive substances, especially when we consider, 1st. That of eighty-one cases of poisoning, sixty-two were effected by colorless substances; 2nd. That amongst those sixty-two white arsenic was employed fifty-four times. 3rd. That in many cases the color or taste of the poisonous substances had caused the criminal attempt to fail. Hence the author concludes,

1st. That it is useful, even indispensable, that the white arsenic used for agricultural purposes, should be mixed with a ninth part of powdered aloes.

2nd. That the same precaution should be observed on delivering arsenic to those who treat the diseases of cattle, &c.

3rd. That the powdered metallic arsenic, vulgarly called 'fly-powder,' should be mixed with one tenth of its weight of soluble blue.

The circumstance which will most forcibly strike the minds of those who reflect on this subject, and who bring themselves to consider that a peculiar taste may be given as a probable safe-

guard against unsuspected poisoning, is this, that in ordaining a precaution of that kind, it would be most desirable to affix a similar flavor to all poisons that can be judiciously submitted for sale, instead of marking one poison or class of poisons by one quality of taste, another by a different quality, and a third by another quality. If suspicion be encouraged in the public mind against particular flavor, the limit of variety should be the smallest that can be directed, for reasons that must be obvious on considering the first circumstance that presses on our notice in the proposal to adopt aloes as a beacon against arsenic. In warning the community to be startled at a *bitter* taste in the intercourse of the tongue with its external relations, the almost unconquerable prejudice that may be excited against a most valuable class of remedial agents, 'must give us pause.' If this prejudice be *not* universally established, the mixture will avail nothing. If it *be* created, no discrimination that is nice enough to decide between a bitter friend and a bitter foe, can be taught to the sick. The proposal of aloes, however, is ingenious, and therapeutically practicable, and as a *prenez-garde* in *food*, the suggestion cannot be amended; for although some will seek with avidity in marshes for bitter condiments, we can remember no article of food, from plain bread to the richest dish, which bipeds would not reject on the detection of a bitter flavor in its composition.

With regard to the *scenting* of poisons, musk offers numerous points of recommendation in the selection of an odor. — *London Lancet.*

Foreign Body introduced into the Rectum. — M. Thiaudiere relates the following curious case in the Bulletin de Therapeutique.

A young man of twenty-two years, in order to overcome an obstinate costiveness, on the 6th of last May introduced into his rectum a wooden hook, the long branch of which was five inches long, and the smaller one, which formed the hook, three inches and a half, including the extremity or point of union of both the branches, between which the distance at their nearest junction was an inch, and two at their greatest separation; each branch was four lines thick.

This hook had been introduced with the great extremity foremost, and when the small branch had fairly entered the rectum, the youth tried in vain to extract the fæcal matters with it. Sharp pains came on. He tried to withdraw it but could not; he then pushed it further up imagining that it would be *dissolved* like aliment. Meantime the pains became dreadful.

On the 30th May, M. Thiaudiere first saw the patient. He

found it barely possible to touch beyond the end of the longest branch, and as he could form no idea of the shape of the instrument, he desired the patient to show him one like it. After a clyster, he then made the man rest with his hands on a chair, the legs and buttocks well separated. One finger after another, he gradualllly introduced the whole hand into the rectum : with infinite difficulty he contrived to seize hold of the smaller branch and disengage it from the folds of the intestine : then pressing the two branches together, he at once contracted the space they and his own hand had occupied, and thus withdrew this novel species of corkscrew entire. He calls it a footling presentation !

No untoward symptoms followed, and the patient entirely recovered in a fortnight. — *Ryan's Journal.*

Fortunate mistake for a Homœopathic patient. — The following curious anecdote respecting a new homœopathic remedy is given as authentic in the *Journal de Medecine of Bordeaux*, where homœopathy is entirely the order of the day : —

" A lady, who had been tormented for several months with difficult digestion, loss of appetite, and other symptoms of gastrodynia, had in vain employed the ordinary remedies, when good fortune threw in her way a follower of Hahnemann. After an attentive examination of the symptoms, the worthy doctor promised a quick cure, provided she would scrupulously swallow the globules which he would send on the following morning ; the patient promised obedience, and next day finding on the chimney-piece a small box containing a quantity of globular bodies, she commenced swallowing them one after the other : the first few went down with difficulty, but hope and perseverance conquered ; the digestion immediately became improved, the appetite better, and the lady was in full convalescence; when her husband, who had been absent in the country, returned, and immediately demanded by what means the almost miraculous cure had been worked ; the empty box was shown him in reply ; the unfortunate husband devoured in secret his anxiety for some days, but finding his wife's health continue unimpaired, he confided the mystery to a few discreet friends ; ' his wife had swallowed a whole box of fulminating capsules.' " — *Lond. Lancet.*

New York Hospital. — From the last annual report of the Governors, it appears that during the year 1834, there have been 1721 patients admitted into the Hospital, who with 184 remaining there on the 31st December, 1833, make 1905 persons who have received the benefits of that Institution during the year last past.

Of that number there have been cured 1266; relieved, 69; discharged at their own request, 154; and as improper objects, 32; and there have been discharged as disorderly or have eloped, 46; died, 174; and there remained 164 in the Hospital on the 31st December, 1834.

The above numbers do not include the Insane Patients in the Bloomingdale Asylum, of whom during the last year 102 have been admitted, who with 120 patients remaining in the establishment on the 31st December, 1833, make 222 persons who have received the benefit of the Asylum during the year 1834; of these 165 were old cases, and 57 recent cases, out of which number, 51 have been cured, 16 have been discharged improved, 16 others at the request of friends, 20 pauper patients have been removed by the City Authorities to Bellevue, 10 have died, 2 have eloped, and 103 remained in the Asylum on the last day of the year 1834.

The proportion of cures effected in the Asylum, whilst in itself it presents a very gratifying result, being 41 out of 57 recent cases, and 10 out of 165 cases of long standing, adds fresh evidence of the importance as stated in former reports, of a very early attention, and application of medical and moral treatment to the first access of mental alienation. The great mass of these cases in the Asylum which seem to be without hope, are long neglected cases of town and city paupers. — *U. S. Med. and Surg. Journal.*

Influence of Age on the Height and Weight of Man. — Numerous researches lately made at Brussels into the height and weight of men and women, lead to the following consequences:

1. From birth there is a difference in weight and height between children of the two sexes; the medium weight of boys is 3,20 kilograms; of girls 2,91; the height of boys is 0,500 metres, (the French metre is 39½ inches), and that of girls 0,490 m.

2. The weight of a child diminishes somewhat up to the third day after birth, and does not begin sensibly to increase until after the first week.

3. With equal age, a man is generally heavier than a woman; it is only towards the twelfth year of age that individuals of either sex are of the same weight. Between the 1st and 11th year the difference of weight is from 1 kilogram to 1½ kil. Between 16 and 20 it is about 6 kil., and after this date, from 8 to 9 kilog.

4. When a male or female has arrived at its full development, they weigh nearly 20 times more than at birth, and their height is only 3¼ times greater than at birth.

5. In old age both man and woman loose about from 6 to 7 kilograms of their weight, and 7 centimetres of their height.

6. During the development in both sexes the squares of the weights at different ages may be considered as in proportion with the 5th powers of the heights.

7. After complete development in both sexes the weights are nearly as the squares of the heights.

From the above it may be deduced that the increase in height is greater than the transverse growth, including the breadth and depth.

8. Man attains the maximum of his weight towards his 40th year, and begins to fail in it very sensibly towards his 60th.

9. Woman does not attain the maximum of her weight until nearly her 50th year. During the breeding period, that is, from the 18th to the 40th year, the weight is scarcely observed to increase at all.

10. The weight of persons measured, and who were fully developed and regularly constructed, varies within points that are about as 1 to 2; whereas weight varies only within points that are at most not more than as 1 to $1\frac{1}{3}$.

11. With equal heights, woman weighs somewhat less than man previous to attaining the height of 1,3 metres, which nearly correspond to the age of puberty, and she weighs a little more if the height is greater.

12. The medium weight of an individual, leaving out of consideration both sex and age, is 44,7 kilog., and taking sex into account, it is 47 kil. in man, and 42,5 kil. in woman.

Similar results were obtained by the late M. Tenon in Paris and its neighborhood. The experiments were made on persons in easy circumstances, who for the most part exceed the lower classes in height and weight. — *Gazette des Hopitaux.*

Bleeding in Pneumonia. — In a recent work of M. Louis, the following are stated to be the results of his researches on the value of venesection in pulmonic inflammation:—

1. That bleeding is useful in pneumonia; that it abridges its duration; nevertheless that it has less influence than is commonly imagined; so that patients bled in the four first days of the disease recover four or five days sooner than those not bled till afterwards.

2. That pneumonia could not be cut short by bleeding, at least not in the early stages; and if the contrary has been credited, it arises from having confounded this disease with another, or because in some rare cases the general symptoms diminish rapidly after a first blood-letting. But then the local symptoms, crepitation, and the dull sound, do not the less continue to gain ground.

3. That age exercises great influence on the duration of this disease, and on its fatal termination.

4. That tart. antim. in large doses, when bleeding has no influence, consequently, in dangerous cases, acts favorably, and seems to diminish the mortality. — *London Lancet.*

EDITORIAL NOTICES.

Thompsonianism, Homœopathy, Electro-Terpathy !

In the above trinity are conjoined the full grown, adolescent, and embryo systems of modern popular and medico-popular charlatanism.

With the first, its extensive prevalence, the hardiness of its agents, and the unlimited credulity of the people in their pretended skill, our readers are already sufficiently acquainted. We now present them one of those beautiful practical illustrations of its safety and efficacy, which have elicited such disinterested commendations from a superanuated Ex-Professor, whose long-cherished yearnings for immortality seem, between Thompsonianism and Aromatic Snuff, in a fair way of being gratified. The following case, communicated by a professional friend, is especially urged upon his attention.

D. S., aged 61, in good circumstances. The facts derived from his family were, that he had had difficulty of breathing for some years, and occasionally suffered from rheumatism: feeling rather unwell he went, a few days previous to his death, to a Thompsonian establishment at the south part of the city, and passed through the '*operation*,' (which we believe is the technical term,) of vomiting and steaming usually employed; he was, however, affected so peculiarly, that the person who superintended the application of the treatment, considered him too weak to bear a second course; in a day or two he felt somewhat better, and May 19th took a second emetic, having walked from his house to the establishment for that purpose: he died under the operation. The person who exhibited the emetic reports it to be lobelia. It is not known that he had any particular malady before death.

May 20. — Autopsy. Drs. Channing, Ware, Otis, J. B.

S. Jackson, Bowditch, the superintendent of the Thompsonian Infirmary and his legal adviser, present.

External Appearance. — Body that of a stout fleshy man; abdomen undistended.

Thorax. — Pleura healthy, except old adhesion to a small extent at the apex of each lung. Lungs, emphysematous to a remarkable degree; not in the least collapsed, but so distended that the anterior edges touched, even after the sternum was raised: not so white as is usual in this disease; emphysema mostly pulmonary, (not interlobular): œdema to about as great a degree as emphysema; serum poured out, on dividing lung, in a full stream; very frothy, without much blood; pulmonary substance broke down rather easily under pressure, but no decided pneumonia; old tuberculous cicatrices in one if not both apices.

Abdomen. — Stomach contained about ten ounces of dirty looking fluid, which was analyzed by Dr. C. T. Jackson: liquid portion found to be mostly gastric juice; tested for the common poisons, but none of them detected. Near the cardia were four spots, very nearly of the same size and general appearance; one of them measured two inches in length and half an inch in breadth; mucous coat over the whole surface of these spots, nearly, or quite destroyed, the muscular fibres being traceable in some of them, though not fairly exposed; veins in the sub-mucous cellular coat were in some quite distinct; no appearance of acute inflammation about these spots; no redness, thickening, or softening, but they were surrounded by a narrow line, which was very dark, almost black, and giving the spots, as was remarked, very much the appearance as if they had been made with lunar caustic, or even the actual cautery; they were all within a few inches of the cardia, and seemed to radiate off from it; otherwise nothing morbid in stomach. Examination of œsophagus unfortunately omitted. The small intestines were greatly distended with gas; contained much thin liquid, and whitish, pasty mucus; examined throughout but no marks of disease discovered; many external hœmorrhoids which had bled freely. Liver, spleen, kidneys and bladder perfectly well. Brain well. The patient had been somewhat addicted to the use of ardent spirits.

Since the above was written, a second instance of the mildness and innocuous character of this mode of practice, which professes to heal all diseases 'tuto, celeriter et jucunde,' has come to our knowledge. A young man, one of a number of individuals, at the west part of the city, who were simultane-

ously affected with symptoms of the access of fever, walked to a noted Steam Infirmary in the neighborhood, passed through the '*operation*,' and at the end of two days died. It is to be regretted that no post-mortem examination was made, which, it is understood, the friends would have readily permitted.

Without comment upon the foregoing facts, we pass to the medico-popular doctrine of the renowned Hahnemann: whose sins of omission are quite as grave and deserving of reprobation as the sins of commission of Thompson and his disciples.

> 'Carnifice hoc ambo, tantum differre videntur: —
> Tardius hi faciunt, quod illi faciunt cito.'

The followers of this worthy, who, if report be true, carries his notions of medicine into morals, and is quite as well satisfied of the efficacy of an infinitely small portion of virtue in his conjugal relations, as of drug or drop in his professional practice, have recently petitioned the Minister of Public Instruction, M. Thiers, (whose cast off mistress, Hahnemann, at the age of 84, is said to have married,) for liberty to open a homœopathic hospital, or dispensary, in the French metropolis. This petition was referred by that functionary to the Academy of Medicine at Paris, which, after some discussion as to whether the subject was worth noticing, appointed a committee to report an answer. The commission were unanimously and decidedly opposed to the whole project. M. Andral, who stood at the head, demonstrated conclusively the whole system to be a dream, and its advocates enthusiasts, speculators, or charlatans. 'He had given their system a fair trial: he had treated above a hundred and thirty patients homœopathically in the presence of the Hahnemannians themselves. M. Guibourt had prepared the medicines; and every requisite care and precaution were duly observed: yet, in no instance was he successful. He had tried various experiments on his own person, and several other professional friends had followed his example; but the results were not as Hahnemann and his disciples described them. He had taken quinine in the prescribed globules, but had contracted no intermittent fever; he had taken aconite, but without being affected with symptoms of plethora; sulphur he took to try if he should catch the itch, but he caught nothing; neither upon swallowing certain globules of arnica did he feel pains as if he had suffered contusion: and so with various other substances, which he and his friends took in obedience to the Hahnemannian precepts. With respect to the cure of disease by this meth-

od, he said that in every instance he was obliged to return to allopathy, inasmuch as under the homœopathic treatment the symptoms went on from bad to worse.'

'M. Bally gave permission to MM. Curie and Simon to treat patients homœopathically in his wards: they had done so for four or five months; a register was kept, and the result was that *not one* of the large number of patients was cured by the Hahnemannian method.'

Other members of note spoke to the same effect, and the discussion was closed by the adoption of a reply to the Minister in the negative.

We have noticed this matter for the sake of exhibiting the estimation in which the sect is held by enlightened men abroad, and with the intention of anticipating its appearance among us, by a plain statement of the preceding irrefragable facts. Since we have ventured to do this, the following cool anathema from the pen of a 'Reverend' advocate of the cause has met our eye; we offer it for the serious consideration of all who are sufficiently hardy to question the claims and value of homœopathy. 'Woe thrice-doubled to him who is wise in his own eyes, who knowing that a perfect and complete system claims attention on account of the multitude of its cures, dares to quoit it down stairs like a shove-groat shilling, &c. Be a far lower, deeper, and a far darker shade of infamy, the portion of that merchant of miseries who would delay inquiry, because if it proved true, he might fall short of some of these rascal counters with which agony fees his unwholesome palm. Cleave the leprosy of Gehazi forever to him, who would barter the mighty space of his large honors for as much trash as can be grasped thus. But there is no such man; kind heaven forbid it! lest the curse of Cain once more affright the world!'

In conclusion we introduce another claimant for support in the person of M. Bachoué, who has concocted a new medical doctrine, which he terms, rather uncouthly we think, Electro-Terpathy.

'Electro-Terpathy comprehends six curative methods, all of which are founded on the organic terpathic law, (from *ter* three, and *pathos* affection) a law discovered by M. Bachoué himself. These curative methods are: —

'1. The *fluxipede* method, by which the humors are withdrawn from the head, the eyes, the ears, the throat, arms and chest.

'2. The *fluxicape*, to withdraw them from the legs, the bladder, genital organs, womb, kidneys, bowels, liver, spleen and stomach.

'3. The *insecticide* method, to destroy all the germs, or insects, retained in the vessels.

'4. The *physipurge*, or *pulsipore*, to augment the flow of the sweat, urine and fæces in the proportions intended by nature, and thus to purge the body by every outlet.

'5. The *electrogene* method, to rouse the sensibility and contractibility in paralysis, debility, and the various chronic and atonic congestions.

'6. The *delectic*, to dilute the saline materials of the blood and thus to diminish the excess of sensibility, of heat and contractibility.'

Private Hospital at Northampton.

Dr. Joseph H. Flint, encouraged by the success of a similar undertaking, on a small and temporary plan, during the last year, has now fitted up a spacious and well situated building, with all the necessary apparatus and accommodations for patients requiring either medical or surgical treatment, and has so arranged the terms of admission, board, attendance, &c., as to place the advantages of the establishment within the reach of almost any applicant.

We have received from Dr. Flint a circular bearing his general advertisement, to which he has added a particular statement of his motives and purposes in the undertaking, and of the plan on which it is to be conducted. His purposes and plans appear to be altogether commendable, and his personal and professional character, is a guarantee that the patients who may resort to the Hospital will receive the enlightened, faithful and humane treatment, — that the facilities which such institutions afford for the advancement of medical and surgical knowledge will be improved, and that it will be conducted with a scrupulous regard to the rights, reputation and feelings of the neighboring practitioners.

Sugar Poisoned with Oxide of Lead.

By C. T. Jackson, M. D.

[Communicated for the Medical Magazine.]

[The following very interesting and valuable paper was received too late for its appropriate place among the original articles.]

During the past winter and spring season, a number of persons said to amount to upwards of one hundred in number, in the town of Calais, Maine, have suffered from a disease of the bowels of a violent character, resembling *colica pictonum* of the severest kind. Three of the individuals have died in consequence of this disease, after a protracted and most distressing illness; several others are still in a very critical state, and have suffered more or less from paralysis of the extremities. Through the kindness of one of the sufferers, I have been favored with the names of forty-eight individuals who are still sick with this disease.

The cause of this distressing malady has been carefully examined into by Dr. S. S. Whipple of Calais, and through his exertions suspicions were finally fixed upon the sugar which had been used in the families of those who suffered; and it was ascertained that the only article of which they had all partaken, was sugar obtained from one importing house at St. Stephens, N. B. It was furthermore observed, that those persons in the families where the disease prevailed, who did not make use of sugar, escaped altogether, while those who indulged most freely in its use suffered the most severely. Thus the chain of evidence was complete against the sugar, and the disease supposed at first to be an epidemic, is in the end proved to arise from poison. Five or six of those persons who were subject to this colic, set out for Boston for the purpose of obtaining medical advice; one, a young lady by the name of Darling, died on board the packet, under the most distressing symptoms, attended with paralysis of the limbs. The other passengers are undergoing medical treatment in this city, and still bear the marks of great suffering and extreme emaciation, the countenance in every one whom I have seen, showing that peculiar expression which accompanies disease of the abdominal viscera.

I have minutely examined four of the sufferers, and from

them have learned the foregoing particulars. It appears that the sugar was brought from Barbadoes late last autumn, and was sold by an importer at St. Stephens, who supplied the trade at Calais. It was also ascertained that the captain of the ship who brought out this sugar, had a small adventure of the same kind, and that he, and those to whom he sold his sugar, suffered from this disease.

After collecting the above evidence against the suspected sugar, it was thought advisable to make a chemical analysis of it. Four parcels, consisting of about a pound each, were put in my hands by Mr. Lee and Captain Rodgers, with a request that I should make an analysis of each of them, and ascertain positively whether they contained poison or not.

The parcels were marked Nos. 1, 2, 3 and 4, and were subjected to analysis in the order of their numbers.

My suspicions and those of Dr. Whipple were fixed on oxide of lead as the poisonous ingredient, and the results of the analysis prove that this opinion was well founded.

They also prove, that a small quantity of this poison, when taken daily, although no immediate disturbance is felt, produces great derangement of the system, and induces a most dangerous and painful disease, which lingers long in the constitution after the use of the deleterious article has been suspended. How often do people exclaim that certain articles are not poisonous, because they have sometimes partaken of them with impunity, when we know that if persevered in, disease and death must be the consequence of their temerity!

I annex the subjoined extract from my laboratory notes.

June 7th, 1835. — Four parcels of brown sugar were handed to me by Captain Rodgers and Mr. Thomas Lee for chemical analysis. They are marked Nos. 1, 2, 3 and 4, and weigh about a pound each. No. 1 is evidently from a different lot from the other samples. It is of a lighter yellow color, and coarse grained; while the others are much darker and smaller grained, and in lumps of a still deeper color. There is nothing peculiar in the taste or appearance of any of the samples, that would cause any suspicion to be raised against the quality of the sugar.

Analysis. — The object of the analysis is to determine if the sugar contains any oxide or salt of lead or copper.

Five hundred grains of the sugar No. 1, burned to cinders in a platina capsule, the cinders crushed to powder in a wedg-

wood mortar, and then burned to ashes in the capsule. The ashes was placed in a green glass flask, and digested with nitric acid, and evaporated to dryness; then treated with water and filtered. The filtered solution was placed in a flask, and a current of sulphuretted and hydrogen gas passed through it until the liquor was saturated. No precipitate took place, from which it will appear that this sample does *not* contain any lead or copper.

I have since learned that this sugar was sent for the purpose of ascertaining if it were free from poison, and was not of the kind used by the family at the time they suffered from the disease.

Five hundred grains of No. 2, which came from the house of Mr. Lee, was treated exactly as No. 1; and when the sulphuretted hydrogen gas was passed through it, a copious precipitate of sulphuret of lead took place, which being collected on a filter, washed, dried and weighed, amounted to 1.6 grains; equal to 1.38 grains metallic lead, equal to 2 337 grains oxide of lead. This will give nearly 38 grains of oxide of lead to the pound of sugar.

Five hundred grains of No. 3, treated in like manner, gave a precipitate of sulphuret of lead, the weight of which is precisely the same as that obtained from No. 2.

No. 4, sugar from Mr. Darling's family. Five hundred grains treated like No. 1, gave, when sulphuretted hydrogen gas was passed through it, sulphuret of lead in weight equal to that from No. 2. The sulphuret of lead obtained from Nos. 2 and and 4 was reduced before the blowpipe to metallic lead. A portion of each of the precipitates was examined by tests for copper, and none discovered.

The lead in this sugar may be either in the state of acetate, malate, or saccharate of the oxide of lead, the sugar combining with it so as to form a chemical combination. How this sugar became contaminated with lead, I am unable to say. There is no suspicion of criminal design attached to any one, and it is probable that leaden reservoirs were used for the syrup, on account of the comparative cheapness of the metal, and that the free acids in the juice of the cane corroded the lead, and thus produced the poison; which crystallized in combination with the sugar. The dreadful effects of this poison should by all means reach the sugar planters, who distribute so noxious an article to the people of many countries, and must produce consequences at which humanity shudders. If the planters

continue to manufacture this poisonous compound, and send it abroad regardless of the consequences, after they learn how much suffering it has caused, (which I am not willing to suppose they will do,) they will become criminal in the eye of British law, and liable to the severest penalties.

Indeed, we may feel assured, that as soon as as they know the effects of their sugar, they will immediately examine into the source from whence the poison was derived, and prevent a continuance of the evil. Their *own interest* would cause this to be done, even if they were not impelled by higher motives; for their sugar would soon have a bad reputation, which would destroy its sale in the market. The researches into the cause of this disease, eminently show the advantage of rational medicine over empyricism, for the empyric would never have traced the disease to its remote cause by a connected mode of research, and consequently would have been unable to learn the cause of the malady and its method of cure. The symptoms in the cases all pointed to lead as their cause, and chemical analysis has confirmed the truth of this opinion. The cause is thus found out and removed; and rational medical treatment will soon restore the surviving sufferers to health.

It is surprising that *colica pictonum* is not a more frequent disease than it is, considering the numerous applications of lead to domestic use. Indeed, I have several times been able to trace the origin of this disease to the use either of leaden reservoirs for water, or leaden suction tubes in wells, where the water was charged with carbonic acid. Such wells are common in Boston, and I have several times been called to witness the effects of water charged with this gas, on lead pipe, which has been corroded entirely through, in the course of two years after it was placed in the well. Whenever water contains carbonic acid, lead suction pipe should be carefully avoided, and block tin substituted in its place; for lead is not only soon destroyed by such water, but a dangerous poison is produced, capable of slowly undermining the most vigorous constitution.

The following list of individuals affected may be interesting to the readers of the Magazine.

No. 1. Miss Shepherd affected five months ago.

No. 2. In Mr. Darling's family four persons affected; one died. Mrs. Darling who uses no sugar, the only one who es-

caped. Mr. Darling has been in the Massachusetts General Hospital; a son of his has been treated by Dr. Bartlett of Concord.

No. 3. Mrs. Pike's family: Mrs. Pike keeps a boarding house; ten persons in the family; all suffered except two who do not use sugar. Mrs. Shepherd, one of the boarders, is still dangerously ill.

No. 4. Mr. Lee's family, six in number; five suffered.

No. 5. Dr. Whipple's family; Dr. Whipple and wife affected, children, who used no sugar, were not.

No. 6. Mr. Lovejoy's family, five in number, have all suffered.

No. 7. Mr. Turner's family, containing four persons, have all suffered. Mrs. Turner died. Mr. Parkes, a member of the family, still very sick.

No. 8. Mr. Sibley's family, three in number; Mr. Sibley and wife affected.

No. 9. Mr. Bacon's family of St. Stephen's; one of them has lost the use of his limbs.

No. 10. Mr. Lane's wife, of Cooper, near Calais, who obtained some of the sugar, has also been affected.

[Since Dr. Jackson's paper came into our hands we have learned, in conversation with an intelligent ship-master, that in 1832, it was not an uncommon practice for the planters upon the south side of the island of Porto Rico, to use the acetate of lead in the manufacture of sugar. He, however, understood, that its use had been abandoned, but from what cause was unable to say. On looking into Christison we find he remarks that* 'sometimes spirituous liquors and preserves have been adulterated with lead, in consequence of sugar of lead having been used to clarify them, or render them colorless. Cadet de Gossicourt says it is a common practice in France to clarify honey and sugar of grapes, and to make brandy pale in this way; and M. Bondel has detected lead in many samples of these articles as they are sold in Paris. Eds.]

To Correspondents. — Dr. Parsons will accept our thanks for his kindness in forwarding Dr. Barrows's paper, which shall have place in our next. The 'Transactions of the New York Medical Society' have been received.

* Treatise on Poisons, second edition, page 481.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim." — WILLIS.

SELECTED ARTICLES.

CLINICAL LECTURE ON THE DRESSING AND HEALING OF WOUNDS.

By ROBERT LISTON, ESQ.

From the London Lancet.

GENTLEMEN, — You have observed, that after the completion of the operation in our patient, Taylor, the flap was cleared from coagula, and the incisions were put together, and retained temporarily by a very few points of the interrupted suture. Lint dipped in cold water was then applied, and ordered to be renewed frequently for the first six or eight hours, until, in fact, all oozing had ceased, and the surface had become glazed. You are aware that this period is by much the most favorable for union. The parts are then exposed, and dried thoroughly, and any coagulum that may have formed betwixt the edges, is carefully and gently removed. Your object is, then, after the removal of all impediment to union (and clot impedes), to retain the parts accurately, and with the least possible irritation of any kind. This indication is fully answered by the application which you have occasionally seen employed here. It consists of a very strong solution of isinglass in spirit. This is liquified by immersion of the vessel containing it in hot water, and it is readily spread on strips of oiled silk. These are applied in the interstices of the stitches

They speedily adhere, and so firmly, that the points of suture may with the utmost safety be removed within the first twelve hours after the operation. This dressing is not disturbed by serous or purulent discharge, and it is very seldom necessary to re-apply it. The plaster adheres much more firmly than any other, and is not productive of the least irritation of the surface. If the strips should be ruffled or detached by any means, their ends are cut off, and fresh bits put on instead, without incurring the risk, by a removal of the whole plaster, or interrupting the adhesion.

The part interested is placed at rest, so that the muscles affecting it are relaxed. The bed-clothes are raised by a cradle or other contrivance, in order that there shall be a free circulation of air around. No other dressing is employed or required. Neither ointments, pledgets, compresses nor bandages. No one will, surely, now-a-days, pretend to say that there is any healing virtue in a composition of oil, lard, or wax, whatever absorbent earth or metallic oxide or salt may be stirred up and incorporated with it. Those villainous compounds are applied with a view, it may be said, of facilitating the removal of dressings, and these dressings are applied for the purpose of approximating the edges and surfaces of wounds, and of absorbing discharges.

If the parts be kept cool, and no applications are made which can prevent the evaporation from the surface, the discharge will be but trifling and inconsiderable; and as there are no dressings applied, there is no use in providing for their easy removal. If the divided surfaces do not come together readily without straining, pulling, and compressing, there is no chance of union resulting. The application of a bandage at all tightly, is productive of much uneasiness; it interferes with the circulation; it is thus hurtful. A slack bandage may not quite so much interfere with the curative processes, but it is useless; and as no dressings are put on which need to be thus retained, we had better dispense entirely with its employment. I am as much awake to the benefit to be attained by bandaging as any one can be; but there must be a clear indication for its use, — some swelling to be got rid of, a certain position to be maintained, or a particular dressing to be kept in its place. When we cut sound structure, and have it in our power, as is then usually the case, to fashion our incisions as we choose, then we should be very much to blame indeed if we did not make them to correspond exactly, and to come togeth-

er smoothly, without the aid of compression or deligation. There should be no occasion for rolling the limb from above downwards, 'expending two or three five-yard rollers' in pushing and retaining the soft parts over the divided end of the bone, and thus preventing the retraction of the muscles. I have already said that, in the first instance, for any other purpose a bandage is not wanted, and must, if applied, rather prove inconvenient than otherwise; interfering with the circulation, heating the parts, and retaining the discharges, keeping everything in a filthy state, and making the patient uncomfortable, a nuisance to himself and all those about him. I can recollect well the horrid stench that used to issue from a wound at the first dressing four or five days after operation, — the quantities of discharge, the state of the dressings, — soaked and dyed of all hues, black, brown, green and yellow. You will find in some recent works ample directions for the methodical and 'scientific' dressing of stumps. 'The straps being adjusted,' you are told that it is proper to 'apply a thick layer of spermaceti ointment, spread on lint, so as not only to cover the face of the stump, but that it may reach a good way up the limb; over this lay a cushion of lint, securing all with a cross and a thin bandage.' A flannel nightcap used to be added to make things look more comfortable. What was to be expected of all this coddling up of a wounded part? What almost uniformly followed — viz. a profuse and rapid secretion of purulent matter, with no inconsiderable swelling. It was a source of wonder and mighty congratulation, when these did not result to their full extent, and when union was discovered to have at all ensued. But all this was of trifling moment in comparison with the state of irritation and feverish excitement in which a patient was kept for weeks by the sponging and soaking of the whole mass of dressing, the tearing away of bandages and plasters, and their re-application day after day. The first and after dressings were too truly looked forward to, and dreaded by the patient, as much as, if not more than, the operation itself. Several bandages were again 'expended' upon the limb, to within two inches of the end of the stump: and 'when this is done, lay the stump down, and remove the straps *one at a time*, sponging away any matter, and cleaning the surface; re-applying a fresh one before a second be taken off, thus going on till all be finished, leaving every here and there a little opening in the line of the incision for the matter to steal away.' Then came the spermaceti pledgets and the

cushions of lint, the cross, and the roller, again. These quotations are from a recent work, and by a practical surgeon. In spite of all this care the bone used to peep out now and then, necrosis followed, and the patient, if he had vigor of constitution enough to bear up against the constant irritation and profuse discharge, got out of the surgeon's hands, with a pointed, painful, and useless stump.

I cannot tell what the practice in hospitals is at this particular period, but the time was when surgeons were wont to follow, like a flock of wild geese, what they had seen practised by those who had gone before them. Now, gentlemen, I should have you to pursue no practice or recommendation whatever the source, whether given in books or lectures, unless you have got, or can give, a most satisfactory reason for so doing. By pursuing the mode of dressing, the advantages of which I have endeavored to point out and exemplify, you will, in the first place, save the patient all the pain and suffering of which I have spoken, and I can assure you I have not overdrawn the picture. You will have the wound heal speedily, and with very little discharge. You can see, in fact, and without annoying the patient, what is going on, through the dressings. You can take means, by snipping the plaster a little, by the moving of one of the ligatures, for the escape of any little confined discharge; you remove the stitches very early, and have the means also of getting rid of the ligatures, so soon as they become detached. Any trifling discharge that does not flow out is wiped away immediately from the taffeta covering the pillow on which the part is laid, and thus all fetor is prevented. In many cases the part lies easy and comfortable with the original dressings till the wound is closed, and the cure is completed. If, as now and then happens, slight œdema of the part should supervene, or if matter lodges after a free exit is provided, uniform support is given by bandage, so as to get rid of the swelling, or gentle compression is made with the view of diminishing the suppurating cavity.

Now, it happens that many wounds received accidentally can, from the circumstances in which they are placed, heal only by formation of new matter. The wound may have been made with a sharp instrument, and there may be no loss of substance, but it has perhaps run across the fibres, or the edges may not have been brought into exact contact, and discharge has been established. Or, again, there may have been bruising, or evulsion of a part, or lodgement of foreign matter.

Many wounds made purposely by the surgeon, as for the removal of morbid malignant growths involving the skin, must be repaired by granulation. No purpose can be answered by pulling together in any way by suture, plaster, or bandage, wounds of this kind. Any such attempt is necessarily followed by much pain, inflammation, fever, and perhaps sloughing of the exposed surface, or of the surrounding integument.

Discharge, by which the action will be arrested, kept under, or moderated, ought by all and every means to be encouraged. This indication is best answered by heat and moisture. Poultices afford these requisites, but they are upon the whole unpleasant and nasty applications. Even the simplest and best, the bread-and-water, is apt to become rancid, and very soon undergoes such alterations that it is no longer the same soothing epithem as when first applied. We here use (I think you must all be converts to the practice from the experience you have had of its efficacy) water-dressing; lint dipped in water of a temperature agreeable to the feelings of the patient, and that again covered by an ample piece of oiled silk to prevent evaporation. This is renewed from time to time, at intervals longer or shorter, according to circumstances, the quantity and quality of the discharge, &c. The object is to keep the part constantly moist, and lint of two or three folds will remain so for several hours. This dressing is simple enough, gives great comfort, and is unattended with fetor. So soon as the discharge becomes healthy and plentiful, and the surface is covered by granulations, when these begin to get at all large and flabby, then some gently-stimulating or astringent lotion, containing salts of zinc, copper, or alum, may be added gradually, the effects being watched. If the discharge be too much repressed, if the surface begins to be coated with lymph, or if these signs have been neglected, and the surrounding skin also begins to show marks of inflammation, the warm water alone is to be recurred to for a time.

You may have heard of *water* dressing, and it is no new practice to apply this simple element to wounds; Pare discovered that it was by far a more pleasing and curative application to wounds than boiling oils. Many army surgeons have had recourse to it, and the plan has been strongly recommended by a celebrated Dublin professor, not a practical surgeon I believe, and very strenuously claimed for him as a grand discovery by some of his pupils. Many of these gentlemen seem to me to have looked upon the *water* as the medicinal agent.

They have applied it pure and of its natural temperature, and even in that state it is more congenial to a wound or sore than the plasters and ointments of the Pharmacopœias, old or new. We, and I doubt not you, will also, when opportunities arise, make the application, but as a substitute, an elegant,— if you can use such a term, — an effectual one for a poultice, having all its good effects and none of its bad ones, viz., the weight and stench, and adhesiveness. The great recommendation of these methods of managing wounds, whether to favor adhesion or cicatrization, is the immense saving of pain and annoyance to the patient, and the abridgment of the curative process. You will observe that no slopping, washing, or sponging the surface of sores, is here allowed. It is not, in fact, wanted. The skin, if soiled, which it seldom is when the proper system of dressing is followed, may be washed with soap and water, but interference with the granulating surface should never be encouraged or permitted. You see meddlesome dressers rubbing away, at no allowance, the tender surface of a sore, till it bleeds profusely, and the patient shrieks from agony of suffering. These people never seem to think that the discharge is poured out for a beneficial purpose, to protect the exposed and tender surface from the influence of the atmosphere and changes of temperature.

When it is necessary to clean the neighborhood of a sore, a little fine tow should alone be used for the purpose. In hospital practice the mischievous effects arising from the use of sponges in the wards is incalculable. A patient is admitted, say with a sore in a foul and sloughy state, attended with intolerably fetid discharge, thin and bloody. This condition may be the result of irregular living, of accumulation of filth, of inattention to changing the dressings, and so on. It is not at all necessary that there should be any specific poison applied or generated. The sore is washed, and probably the same sponge is used (it is not at all essential that the same basin and water should) for other patients laboring under wounds and sores. They all degenerate forthwith ; they are inoculated with a virulent animal poison, and if proper and active measures be not instantly adopted, sloughing of granulations, of cicatrix, of integuments, and of cellular tissue, with great constitutional disturbance, will result in one and all. Much of the hospital gangrene which invaded and devastated hospitals was so occasioned. No doubt, whatever care may be taken in the best ventilated and regulated hospitals, an unfavorable change will

now and then come over the cases, attributable clearly to the state of the atmosphere. But with the attention to the cautions I have given you, such alterations will prove much less frequent and much less dreadful in their consequences. I have had ample experience in this matter, and in a hospital which used to be most notoriously unhealthy. Before I took charge of it, sponges were indiscriminately used for the washing of all and sundry sores and sloughings, for the post-mortem examinations, and for the operations upon the living body. I need not tell you that a most strict and thorough search was made for all such fomites, and that they were, when found, destroyed; that means were taken to prevent their replacement amongst the nurses; that the only sponges in the hospital were those kept exclusively for operations, and under the immediate charge of the house surgeons. Wards badly constructed, and the constant abode of erysipelas and sloughing sores, became henceforward sweet, and so healthy, that under ordinary circumstances, union of wounds seldom failed; no bad test, I can assure you, of their state and condition. When I have the pleasure of meeting you here again, we shall consider the best, most effectual, and most speedy means of bringing ulcers, whatever be their nature or condition, into the state of simple purulent ulcer, — a sore disposed to cicatrize.

Cæsarean Operation performed three times with success on the same Woman.

From the London Lancet.

In the German medical journal Abhandlungen ausdem Gebiete der Geburtsshülfe (Ed. G. A. Michaelis), Keil, 1833, we find the following case, in which Drs. Zwanck, Wiedemann and Michaelis were the operators, and which we now analyse and present to the English reader. The subject of the report was a female, who had suffered so much from rickets and softening of the bones during childhood, that she did not commence to walk (and then moved only with difficulty) at the age of twelve years.

At the period of her second pregnancy her stature did not exceed four feet (Prussian measure), and the vertebral column

was excessively curved at the lumbar region: the pelvis, when examined internally, appeared very much contracted from behind forwards; the antero-posterior diameter, from the lower edge of the symphysis to the promontory, was two and a quarter to two and a half inches, and that of the inlet was estimated at two inches. The cavity of the sacrum was not well marked, and the perineum was very small.

The course of the first pregnancy was regular, and labor came on at the end of forty weeks: as the head appeared to remain immovable above the inlet of the pelvis, the child was turned and the forceps applied, but without effect, and the assistance of another physician was required.

As the child appeared still to live, it was determined to perform the Cæsarean operation, and in order to prepare the patient twelve leeches were applied to the abdomen, and she was ordered an emulsion containing some nitre.

The operation was performed on the following morning, by Dr. Zwanck, June 18, by an incision which divided the linea alba. Dr. Seidel supported the parts exposed by this incision with a cloth steeped in oil; one or two folds of intestine protruded near the lower extremity of the wound, but they were soon returned: an incision was now made into the uterus, and the child and placenta were extracted at the same time. A sharp hemorrhage from the division of the uterus was arrested by dropping cold water on it, and the organ became firmly contracted.

The child, a boy weighing about seven pounds, showed traces of recent death. The wound was closed with sticking-plaster, covered with charpie, and supported by a bandage. The treament at first was strictly antiphlogistic, and half a grain of acetate of morphine was administered every day: by degrees a more strengthening regimen bark, &c., was substituted. The discharge through the wound was moderate, and after three weeks it was completely closed; on the 20th of July the patient might be considered as cured, and the menstrual discharge returned eight weeks after the operation.

Dr. Zwanck attributes the excellent sleep enjoyed by the patient to the use of the morphine, which thus contributed to prevent the development of various accidents.

[The rapid cure and the absence of every dangerous symptom in the present case, are remarkable circumstances; and although the use of the morphine, and abstinence from the suture, which is generally employed, may appear to account

for the success of the operation, yet other reports prove that a perfect cure may be obtained, under favorable conditions, when the constitution is sound and the patient is submissive, without our having recourse to this last resource.]

The above-mentioned female became pregnant the second time, after a lapse of three years, and was brought to the lying-in-hospital of Kiel, in December 1829. Since the last operation it was manifest that the uterus was united to the parietes of the abdomen at the inferior portion of the cicatrix; and on the coming on of the labor pains, the extent of the union could be sufficiently perceived by the wrinkled lines produced in certain points; the diameter of this might amount to one and a half inches. Upon internal examination the fœtus or its position could not be felt, but externally it was found that the buttocks lay upon the pubis. At the commencement of January (the last month of her pregnancy), the patient complained frequently of severe tension of the abdominal parietes. Enlarged veins were seen to cross the old cicatrix, the leech-bites partially opened, and one furnished a good deal of blood.

Labor commenced in the night of January 1830. On the morning of the 21st the os uteri began to dilate, and at four o'clock, P. M. its dilatation was about three fingers. The membranes now gave way, and a foot was distinguished. Under these circumstances the Cæsarean operation was performed by Dr. Wiedemann, who preferred making his first incision along the left side of the linea alba. The placenta immediately presented itself in the wound. This was removed, the left arm of the child was seized, and the infant itself was extracted as far as the head. A contraction of the uterus soon set in, and the head followed a gentle traction. The child, a female, seven pounds in weight, was born alive. On this occasion three points of suture were applied, according to Graefe's plan a small pledget of lint was laid in the lower angle of the wound, and the whole was dressed with sticking-plaster, lint, &c. The progress of the wound now also was favorable, and in the beginning of March it was all cicatrized except in a few small spots. The secretion of milk appeared during this time, and the child took the breast, but died on the 19th of February, from a species of endurcissement of the skin. Up to the middle of March a few points of the wound remained unclosed, and on examination there was found a fistulous orifice from which on pressure a little mucus-like fluid exuded. After sev-

eral attempts to find the direction of the canal, the sound penetrated more than an inch into the uterus, which lay close under the cicatrix, and was firmly united to the integuments of the abdomen. Injections thrown into the fistula passed out through the vagina, and a muco-purulent fluid, in some quantity, also now came away through this channel. The fistula uteri resisted all attempts made to heal it, up to the patient's departure in March, although sometimes it appeared for a few days to be closed with a thin pellicle of skin. The whole anterior surface of the uterus now appeared to be united to the abdominal parietes, and the organ was so much drawn up that the os uteri could scarcely be reached above the os pubis with the finger.

The third pregnancy took place in June 1831. At this time the fistula was healed, and the patient had commenced to menstruate soon after her departure from the institution. She returned in March 1832, and in the end of the same month labor set in, when M. Michaelis (for the third time) performed the Cæsarean operation. He made his incision on the left side of the second cicatrix, and extracted a male child weighing six and three quarter pounds. The placenta was easily loosened and brought away likewise. A severe hemorrhage, which followed the removal of the placenta was arrested by dropping water from a sponge moderately elevated above the wound. The latter was dressed in such a manner as to guard against future hemorrhage. The patient's state continued favorable, and on the 16th of May only a few small points of the cicatrix were open, and these soon healed. The patient left the institution on the 27th, and since that time has continued to enjoy most excellent health.

This highly interesting and remarkable case gives M. Michaelis an opportunity of delivering some judicious remarks on the Cæsarean operation, to a few of which we shall allude.

1st. On the operations which have been performed several times with success on the same female. He refers to ten cases as the only ones to which no doubt can be attached.

2nd. Cases in which the second operation was followed by the death of the mother; and also examples of pregnancy after the Cæsarean section.

3rd. M. Michaelis strongly condemns the practice of suture

as likely to bring on inflammation, and hence he applies them as seldom as possible.

4th. The author notices 110 cases in which this operation was performed; of these 62 died and 48 recovered. If we seek the causes of death, we find, — From the immediate impression of the operation 2; convulsions 2; debility 3; hemorrhage 7; meteorismus 3; effusion into the abdomen without inflammation or hemorrhage 3; excessive softening of the bones 1; diarrhœa 1; inflammation 13; gangrene 8.

In order to calm the first impression of the operation, the author recommends the plentiful use of opium, and mentions that one of the patients took as much as twenty grains of the acetate of morphine in the first few days. Experience has also convinced him, that perhaps the most important point of all in the treatment is, the early and sufficient emptying of the intestinal canal, which is the best means of promoting the discharge of the lochia. The 110 operations already noticed, gave birth to 67 living, 29 dead, and 4 asphyxiated children: but perhaps the most curious circumstance of all is, the difference of mortality for the cases of repeated operation. Fifteen patients who had been operated upon became pregnant a second or third time, so as to furnish 18 cases; as 2 died from accidental laceration of the uterus, it remains to consider only 16: of these, 11 were operated upon with success for the mother, and 5 unsuccessfully for the mother: 8 children were saved and 7 died. Thus, if we take the relation of the above 16 cases, we find that the cures are to the deaths, in cases where the operation is performed for a second or third time, as 11 to 5, while the general mortality, or rather the relation of cures to deaths, is as 4 to 3 nearly.

ORIGINAL ARTICLES.

Art. I — Nitrate of Silver successfully employed in the treatment of Burns.

By Ira Barrows, M. D.

In the American Journal of the Medical Sciences, some four or five years since, I noticed an article headed 'Lunar Caustic for Burns.' Being favorably impressed with the account of its efficiency, I resolved on its use as soon as opportunity should offer. From my diary, from 1832 to 1835, I copy the following cases.

Case 1. — J. A. Hammond, colorer, while pouring boiling water into vats for preparing dyes, slipped and plunged both hands to the bottom of the vats, immersing the arms to the elbows. On removing his coat and shirt sleeves, a portion of the cuticle was separated, and where the cutis was not denuded, vesication was pretty general. I saw him in about thirty minutes after the accident, and so acute was the pain that he could neither sit nor stand still. In the hurry of the moment I made a solution of the nitrate of silver, containing, by estimate, one drachm to eight ounces of warm water. We dipped cotton cloths in the solution and enveloped his arms. In ten minutes he expressed himself relieved, and sat down with composure. Directed to keep the cloths wet with the solution, and applied for twenty-four hours. At the expiration of this time, I removed the cloths, and found the inflammation had subsided. A thin pellicle in place of the cuticle was extended over the denuded cutis, — directed the application of simple cerate. He resumed work in four or five days, well.

Case 2. — A. O. Read poured boiling water from a teakettle upon his foot. On removing his stocking, a portion of the cuticle was separated, leaving the cutis on nearly one half of the top of the foot denuded. The side, and a portion of the bottom of the foot was vesicated. I saw him in about ten minutes after the accident, and found that he had applied oil and cotton. I removed the cotton and applied caustic in solution, as in case 1. Continued the application of caustic for about twelve hours. The cloths were then removed. No inflammation, and very

little tenderness remained. Directed application of cerate. The patient put on his stocking and shoe and walked to his counting room. Some portions of the burn were fretted by his stocking, and required the application of caustic a second and third time. He continued to walk daily. At the end of one week the dressings were entirely removed, and he was well.

Case 3. — Child of O. Perrin, aged six months, while sitting in her mother's lap at the table, overturned a cup of scalding water into her bosom. Nearly one half of the right breast, together with a portion of the side and arm were vesicated. I saw her in about thirty minutes. Cotton and linseed oil had been applied. Removed cotton and applied caustic in solution, as in cases 1 and 2, and administered an anodyne. The child ceased crying in about ten minutes and nursed. Directed cloths to be applied wet with caustic solution during the night. In the morning found her playful, — she had slept well. Removed cloths. Inflammation had subsided. Directed cerate. Vesicated cuticle dried, and came off in three or four days.

Case 4. — Child of Mr. Freeman, scalded on the breast and bowels by overturning a pitcher of water from table. Vesication followed. Applied caustic, as in former cases, for twenty-four hours, and then directed cerate. Cuticle dried and fell off in about five days.

Case 5. — Jane Bowen, four years old. Clothes took fire from burning shavings, where several children were collected making bonfires. Was discovered to be on fire by her mother and a lady in the house ; but before she could be reached the flame had ascended above her head. A woolen undercoat and frock were nearly consumed upon her back. The flame was smothered by the lady, who caught and wrapped her in her apron. Saw her in about twenty minutes. The vitality of the cutis upon the thighs, nates and back as high as the third or fourth dorsal vertebra, was destroyed.

A large extent of surface was also reddened, vesicated and denuded. I apprehended convulsions. I applied caustic in solution, and gave anodyne. The pain was assuaged, and the tendency to convulsions disappeared in less than half an hour,— continued the caustic about twenty-four hours over the vesicated and denuded portions, at the end of which time inflammation had subsided, and healthy action was restored. Over thighs, nates, lumbar and a portion of the dorsal region emol-

lient cataplasms were applied, into which were subsequently introduced yeast, or a finely powdered charcoal. Sloughing ensued, and suppuration and granulation went steadily forward for about three months. A small surface, not more than three or four inches square, remained to be healed. But nature was exhausted, the extremities became œdemetous, a general anasarca followed, and death terminated her sufferings.

Other cases have occurred, demonstrative of the superior claims of caustic in scalds and burns which I did not note. Cases have occurred in my own family, and on my own hands, from heated iron and steam, which ordinarily, would have been troublesome, to which I applied both the caustic pencil and solution, and found immediate relief from smarting, and a speedy cure.

Indeed, caustic has not failed to operate like a charm in a single case of burn where I have employed it, save where the life of the cutis was destroyed, as in case 5.

Another claim that caustic has to our favorable notice, consists in the fact that the extremely irritable state of the cutis so frequently attendant upon blistering with cantharides, may be removed speedily by application of this nitrate, and the the patient relieved from days and sometimes weeks of suffering.

The modus operandi of caustic, so far as I have understood it, is to destroy the sensibility of the capillary nerves, and by destroying the whole surface to form a thin pellicle, which effectually supplies the place of the cuticle, defends the cutis from external irritants, and thus intercepts inflammatory action.

I have been induced, Dear Sir, to report to you these cases, not from a supposition that caustic is an *infallible* remedy for burns, but from a decided conviction of its superiority over other remedies whose effects it has been my lot to witness; and because the observations which you may be disposed to make, in your large circle of practice, if you have not already made them, may enable you to confirm or destroy the confidence which I have expressed in its utility for this purpose.

Pawtucket, Mass., June, 1835.

Art. II. — Remarks on Introsusception of the Bowels, and a new method of treatment suggested.

By J. A. Gallup, M. D.

[To the Editors of the Medical Magazine.]

In looking over your Magazine for May, 1833, my attention was particularly arrested by a case of 'Introsusception of the Small Intestines, in a Child six months old,' related by Dr. W. to the Boston Society of Medical Improvement. The common medical treatment seemed to be unavailing, as is most usually the fact in such cases; and as the introsusception could be clearly detected in the left hypochondrium, two or three inches in length, Dr. Warren performed the operation of gastrotomy, and readily succeeded in reducing the invagination. However, notwithstanding this may be adjudged justifiable, and heroic practice, the child died, — and on inspection of the parts there was 'considerable peritonitis with effusion.'

These cases are more frequent than has commonly been supposed, and as they are usually attended with vomiting and some diarrhœa, they are liable to be mistaken for common cholera morbus, and in children for cholera infantum, or some ordinary constipation, with inflammation. They often occur in malignant fevers when attended with vomiting, in this case a portion becoming invaginated in the part above. It also appears sometimes in typhus fever. Perhaps physicians generally are not much in the habit of examining the abdomen carefully with a view to the detection of an invagination, — and again, it is questionable whether such a displacement can always be detected, especially where there is a fullness of the adipose tissue.

I cannot recollect at this time that gastrotomy has ever been practised in this country until the present instance. It certainly ought to be regarded as justifiable practice when all other common expedients have failed; but the very delay occasioned by the use of these expedients may too often be the means of rendering the operation abortive; for it will always come too late after peritonitis and effusion have taken place. These changes follow in quick succession most commonly, and but little benefit may rationally be expected from the operation after the first forty-eight hours; and yet I know one case which I believe had no very rational treatment, that continued two weeks

before it destroyed a young woman, and being desired to inspect the body, I found invagination of the right ileum in the right side of about five inches in length, and the parts were nearly free from traits of antecedent inflammation. There were no adhesions, nor any effusion; but merely a slight and limited injection.

I have no intention of dwelling upon the pathological character of the affection, for the preceding remarks were introduced in order to raise a suggestion, and excite inquiry into the propriety of a different method of treatment in these cases, and that is, — the trial to affect the reduction of the invagination by the power of suction.

Many years ago I recollect having seen an intimation in some periodical, of a practice in Prussia of reducing hernia by applying, I think, heated earthen pots to the abdomen for this purpose. Although the idea impressed me pretty forcibly at the time, yet, by some means, it was forced from my mind, and at various times when I ought to have had it at command, until in February, 1833, when I was much perplexed with a case in a man of about 35 years of age. This patient complained of a tormenting, and as he expressed it, a twisting pain in the right hypogastric region. It was pointed out by him as being near the internal abdominal ring; however, upon a close examination, it was judged to be a little higher up than the ring. Nothing like a tumor could be discovered upon the most accurate touch, he being a pretty fleshy subject.

He had been long affected with an inguinal hernia on the left side, but this gave him no trouble now, yet served to increase the suspicion of a small part of intestine being confined between the muscular plates of the abdomen. All attempts for relief having failed, and they had been very diligently applied for forty-eight hours, the vomiting of watery matter was almost incessant, and a beginning of the phenomena indicating a failure of the vital forces, an adventurous operation had been almost concluded on, and yet our opinions were undecided between hernia and invagination. At this conjuncture of extreme perplexity, the idea of suction came to my mind, as if intuitively.

The abdomen was somewhat distended, but not extremely; yet so as to afford a pretty large surface. A four quart glass vessel, tumbler shaped, was readily procured. The atmospheric air was rarified in the vessel by burning a bibulous strip of paper dipped in alcohol. It was suddenly applied by placing

one margin about an inch and a half from the painful point above, and dropping the remainder so that it included a portion of the umbilical region. The suction was powerful, and a large concavity of the peritoneal surface of the parieties must have been the effect. He bore the process without any essential inconvenience after the first shock. It was suffered to remain about half an hour.

The event of this process was, that the patient complained of but very little of his former pain, but merely a soreness; — he vomited only three or four times after, and in twelve hours had intestinal discharges that gave good evidence of their previous condition. His febrile symptoms soon vanished, and in three days required no further attention. Now, it may be difficult to say, what the state of the viscera were in this case; but from the whole of the phenomena, I have but little hesitation in believing it was an invagination of the small intestines, and it is difficult to resist the evidence that it was restored by the displacement affected by the change in the abdominal organs as a consequence of the process.

I greatly regret that my attention has not been more turned towards this process, so that I might have had it at command on many occasions; and a principal object of this article is to excite the attention of the profession to it, hoping if others have made use of it they may be so obliging as to make some report of the same; and if even this should excite trials of the process, that they may hereafter be reported.

If it should be used by any, it may not be amiss to notice, that it may be safer and better to exhaust the atmospheric air by means of an air pump, as this gradual process may not be so likely to injure the intestine, as a sudden displacement might, whilst at the same time the degree of necessary exhaustion can be better graduated.

There ought to be two exhausting receivers, to be placed in opposite directions, and each one have the margin of the glass at a little distance from the point of injury whenever this can be ascertained.

The diameters of the open end of the glasses ought to be as large as the surface of the abdomen can admit, especially in fat subjects, otherwise the peritoneal surface will not be able to form a concavity sufficient to receive the viscera, and displace the preternatural state of the intestines. So glasses of very different sizes will become necessary for use.

Internal medicines are altogether useless in either hernia or introsusception, and had better be withheld, as they add much irritation. However, it may be suggested that previous to applying the exhausted glasses, the patient ought to remain twenty or thirty minutes in a warm bath, and this be directly followed by a copious bleeding. The operation always ought to be done before the abdomen has suffered much meteorism, for in this event a concavity cannot be well formed, nor can the viscera very easily be moved on themselves.

It can be tried with perfect safety in all varieties of hernia where there is good reason to believe that inflammation has not produced adhesions, and before softening and gangrene may have too greatly injured the textures.

In some invagination there may be eight or ten inches of the tube involved, and such a state might require several applications of the process before it may be entirely evolved. Whether it may be best to apply two glasses at once, or to apply one on each side alternately may, perhaps, be better determined by trials.

Art. III. — Pathological Phenomena attending the Execution of five Malefactors, as observed by

Joshua B. Flint, M. D.

Physician to the Suffolk Jaol and House of Correction.

The great degree of precision which is justly expected of those who are called to participate in medico-legal investigations at the present day, and the momentous consequences which often depend on medical testimony, should admonish the physician that the most serious responsibilities are often involved in matters which may be considered only incidental to his profession, and that to meet these responsibilities with credit to himself and advantage to the cause of truth and justice, he must engage in studies and observations somewhat beyond the absolute requirements of his daily practice.

At one time he is summoned, amid the anxious hopes and fears of bereaved friends, to determine whether a body which has ceased to manifest the obvious traits of vitality, is really dead, or only apparently so, — whether it shall be consigned

to the grave, or is the hopeful subject of those reanimating appliancies by which he is sometimes so happy as to snatch a victim from the very arms of the destroyer. At another, he is called on to decide from inspection of a corpse, what was the mode of death, and whether the fatal violence was self-inflicted, or received from another, — and again, he attends the executive officer of the law in the trying duty of judicial homicide, to pronounce when the awful sentence of death is effectually executed. In order to judge rightly and advise wisely in such cases, he must have studied death, — that awful subject, so interesting in its physical as well as moral relations, — in all its forms, and especially when effected by violent means. He must have become familiar with the phenomena, both superficial and latent of this condition, and be prepared to recognize its constant criteria, as well as those which characterize the various modes and occasions of it.

It is from a desire to contribute something to our stock of recorded facts on some of these points, and also in the hope of serving the cause of humanity as well as science, by indicating that apparatus and arrangement by which our established method of execution can be rendered most sure and speedy, that the following particulars are recited.

The individuals who were the subjects of these observations were between thirty and forty years of age, of middling stature, and apparently healthy. The cord used for their execution was nearly three fourths of an inch in diameter, and they were allowed to fall four feet and a half. The noose was drawn close to the neck, except in No. V, (I choose to refer to them by number rather than by name,) where it was loosened at the request of the prisoner. In Nos. I, II, and III the knot was placed behind, just below the occiput; but in Nos. IV and V, it was drawn, as usual, to the mastoid process.

The act of death seemed to be attended with a different dedree and duration of suffering in almost every individual. In Nos. I and II, a slight shudder of the frame, together with one or two feeble efforts of the thoracic muscles, was all the motion observed, except that communicated by the fall. In these, and in No. III, where the convulsive motions were rather more remarkable, the sphincter vesicæ was relaxed in about four minutes after the fall, and in one of them, that of the rectum yielded about the same time. In No. V, the struggles were much more intense, and it was more than five minutes after suspension before they had entirely ceased.

At the expiration of twenty minutes they were examined by the physicians, who had been called to that duty, by the marshal, and were pronounced dead. The bodies were then taken down and deposited in the prison. Four hours afterwards, they were examined, chiefly for the purpose of noting the external appearances; for dissection was not permitted except in one case.

The limbs were somewhat rigid, and the fingers flexed and blueish like those of cholera patients, — and this was especially remarkable in Nos. I and II. Considerable warmth remained about the epigastrium; but the extremities were entirely cold. The cord was found, in every case, above the thyroid cartilage, where it was imbedded in the integuments; but had never occasioned ecchymosis. So far as an external examination would enable me to determine, it did not appear that any fracture or dislocation of the vertebræ had occurred in either of them. The face was but little, if at all, discolored, and, with the exception of No. V, neither swollen nor distorted at all. The mouth and eyes were closed; there was no protrusion of the tongue nor frothing at the mouth. The corniæ were clear, and the pupils somewhat dilated. In No. III, there was a little flux of slightly colored mucus from the nostrils; but, with the single exception already made, their features were as composed, and their countenances as natural, as I have ever witnessed after the gentlest death. In No. V, the face was livid and swollen, the conjunctiva suffused, and the pupils somewhat contracted.

In No. IV, the death was complicated in such a manner as to render it a remarkably interesting anomaly. Just before the time appointed for the execution, the prisoner, evading the inspection of the officer who was watching him, attempted to commit suicide by cutting his throat with a sharpened piece of tin, which he had prepared and secreted for the purpose. The wound traversed the neck about an inch below the thyroid cartilage, dividing the external jugular vein, a branch of the superior thyroid artery, and most of the fibres of the mastoid muscle on the right side, cutting only the integuments on the left, but opening the trachea, extensively in two places in the centre.

The wound was soon discovered and immediately dressed, by uniting the trachea, in the first place, and afterwards the divided integuments with the interrupted suture, and applying a graduated compress and roller so as to cover the lesion as effectually as possible. Nevertheless, the air continued to pass

through the aperture at every instance of respiration or speech. No vessel was tied, — the hemorrhage had ceased spontaneously, with the loss of less than a pint of blood. After the wound was dressed, while laying on his bed, the prisoner was tolerably lively and vigorous; but was in a most unfortunate condition for execution by hanging, as that generally produces death through asphyxia, and as it was next to impossible, in this case, that the trachea could be compressed below the wound. The marshal was apprised of the distressing predicament in which the circumstances of the case might involve him, at the execution, and the officer, who had charge of those matters, was instructed to apply the noose snugly over the bandage, in the hope that when it tightened it would crowd the compress into the wound, and obliterate the tube at the point of its division, and also to extend his drop, so as to occasion some other fatal lesion, if possible. On attempting to rise from bed, however, he became faint, and continued in a state of syncope, so that he was carried on to the scaffold in a chair, and continued in it until it fell from under him with the platform on which his companions stood. His death was happily speedy, and not attended with any particular indications of suffering. In the convulsive efforts at respiration after the fall, the air was heard, at the distance of several feet, rushing through the wound in the trachea. In consequence of the peculiar circumstances in this case, a request for anatomical examination was readily granted.

On opening the *thorax*, the *lungs* presented themselves more extensively than usual, being distended by slight interlobular emphysema. In other respects these organs were in perfectly good condition,— no engorgement, and scarcely even any adhesions. The *heart* was small, and empty rather than crowded. There was a small coagulum in the left ventricle, and a little fluid blood in the right, — no remarkable accumulation of blood in the large vessels. There was considerable ossific deposition about the valves of the aorta.

In the *encephalon*, the sinuses and superficial vessels contained but little blood, and the brain exhibited neither congestion nor extravasation in any part. It should be noted here, that the thorax was unadvisedly opened first, and the condition of the encephalon may have been somewhat affected by the division of the large vessels in that cavity.

The *cervical vertebræ* were then laid bare, and we could discover no dislocation of the bones, nor rupture of their ligaments.

Our dissection therefore, did not furnish any satisfactory explanation of this man's death. How was it occasioned then? I believe we must conclude that it was produced by the shock of the fall, acting upon and through the nervous system with sufficient power to extinguish the vital energies, exhausted as they already were by hemorrhage, and other depressing influences. The mechanism of this mode of death may be variously traced, in conformity with established phisilogical principles. The lesions in such a process would be functional, or not notably structural, and therefore not revealed by dissection.

No. V probably died apoplectic, the asphyxia being, in his case, secondary in the series of pathological events.

Nos. I, II and III, on the other hand, seem to me to have been very genuine cases of asphyxia, where the vital processes had been completely suspended by this means, before the other destructive agencies to which they were simultaneously subjected, had operated to any effect. Fatal apoplexy would have produced some external evidences of accumulation of blood in the head, — the pupils would probably have been contracted, and the face flushed and bloated. I am aware that fracture or luxation of the cervical vertebræ, sufficient to have accasioned fatal lesion of the medulla spinalis, might have occurred, without being discernable by any external appearance or manipulation. But the examination of many executed criminals has proved, that this injury is very rarely produced, and in the present instance, the usual symptoms of compression of the spinal cord were wanting, and some were present which were inconsistent with the observed effects of such lesions. When the cervical portion of the medulla spinalis is irritated, the muscles of the face and neck are usually drawn into irregular contractions along with those of the chest and abdomen, and considerable distortion of the features would be likely to remain after death occasioned by an injury of this part. But, as I have already observed, the countenance remained composed and natural in all these individuals, except the one supposed to have died apoplectic.

This condition of the face, I believe, is generally present after death by hanging; for I have observed it in several other cases, some of which were suicides. The swollen and ghastly countenance, protruded eyeballs, and flux of bloody froth from the mouth, which make a part of some of the most authentic descriptions of these corpses, are only accidentalcompli ca

tions, and are not constant nor characteristic phenomena of death by hanging, — they are derived from the theories or imagination of their writers, as was Shakspeare's picture of the same subject, which we sometimes find quoted in scientific treatises as true to nature and fact, rather than from a close observation of nature. I believe that some of our best authorities need revision on this point.

My own views of the facts above stated, tend to establish the belief that a sudden and complete interruption of respiration, is the most humane method of producing death, which can be employed in public executions, and, therefore, that all the arrangements and apparatus employed, should be, as wisely as possible, adapted to effect this object, regarding the chance of producing luxation of the vertebræ or any other fatal injury, as of secondary consideration. In adjusting the cord, with this view, the point of traction should be directly behind the trachea, *i. e.* the knot should be placed at the occiput instead of the side of the head, as the custom has been.

COLLECTANEA.

On the Responsibility of Medical Men in France. — At Rome, the Lex Aquilia decided that medical men were responsible for errors committed in the pursuit of their professional duties, whether these errors proceeded from ignorance or from inattention. No one had any right to complain of this enactment in those early times, seeing that there was an authoritative codex, containing a certain number of prescriptions, from which physicians and surgeons were ordered not to deviate. This prohibitory code was, as a matter of course, repeatedly neglected, and it gradually fell into desuetude. The earliest records of medicine in France prove that a Lex Aquilia was recognized in that country. We have the account of the trial of a surgeon, in April 1427, for having administered ' un remede violent, qui pouvait le tuer ou le guerir en peu d'heures.' In the records of the French Parliament for 1696, we find, however, ' que les chirurgiens ne sont pas garans et responsables de leurs remedes, tant qu'il n'y a que de l'ignorance, ou de l'imperitie de leur part quia ægrotus debet sibi imputare cur talem elegerit.' In 1716, a surgeon was amerced in 15,000 liv., to be paid to a young man whose arm required amputation, in consequence of a maltreated fracture, and he was forbade to practise surgery in future In 1725, a sur-

geon of long standing, and of acknowledged skill, was so unfortunate as ' estropier un malade en lui faisant une incision.' No charge of negligence or incapacity could be laid against him, but ' he had operated without the sanction of two other surgeons, who had been called into consultation with him.'

The defence rested on the inapplicability of the expression, ' si male et imperite,' to the accused ; and it was fairly urged, that many diseases and accidents terminate unfavorably, in consequence of the unhealthy constitution of the patients, and of other accessory circumstances, such as the state of the weather, mental emotions, &c. The court nevertheless found the surgeon liable ; but, in consideration of his long-tried ability, and of his good intention, ' a bien voulu ne pas donner un jugement rigoureux, — elle vous enjoint d'appeler à l'avenir un conseil dans les grandes cures, et soit que vous soyez l'ancien, ou le plus jeune, de déferer à l'avis de la majeure partie dans la consultation qui sera faite.' The responsibility of medical men is to this day, in France, not founded on any appropriate and definite law, but on certain articles of the code, which are of a very vague comprehensiveness, such as the following : — ' Quiconque, par maladresse, imprudence, inattention, negligence, ou inobservation des reglemens, aura commis involontairement un homicide, ou en aura eté involuntairement la causé, sera puni de trois mois á deux ans, et d'une amende de 50 francs à 600 fr. ;' and ' chacun est responsable du dommage qu'il a causé non seulement par son fait, mais encore par sa negligence, ou par son imprudence.' Of late years, not a few trials have been instituted against medical practitioners for imputed mala praxis, and heavy damages have been awarded in several instances. In 1825, Dr. Helie was called to the assistance of Mad. Foucault in labor : the labor was long and very tedious, and Dr. H. supposing that the child was impacted in the pelvis, cut off both arms, which protruded ; the child unfortunately survived the delivery. The father prosecuted the doctor ; the doctor in vain urged that a ' Docteur en Médecine et en Chirurgie' was not responsible for ' ses faits de pratique.' The court laid the case before the Royal Academy of Medicine, a committee of which examined all the statements most minutely, and reported ' que l'accoucheur avait commis une faute, mais qu'il n'appartenait pas à l'Academie de prononcer s'il devait en etre responsible.' When this report was made to the Academy, objections were raised against it on several grounds and ultimately the following declaration was agreed to ; — ' la manœuvre inculpée compte pour elle un assez grand nombre d'autorités imposantes, pour qu'elle ne puisse pas etre attribuée à l'erreur.' Somehow or other, another commission was appointed, and the judgment which the members pronounced was, ' que l'Academie ne trouvait, dans les pieces de la procedure, aucun

element suffisamment clair pour repondre aux questions du tribunal.' But the learned jury of Domfront were not to be baulked in this way; they did not hesitate to say that the questions had been 'eludées plutot que resolues' by the Academy, and forthwith they condemned 'le pauvre Docteur' to pay to the child an annuity of 100 francs for the first ten years of its life, and afterwards one of 200 francs during the remainder of its life; all the expenses of the action were also saddled upon Dr. H. This case excited the greatest interest among medical men in France, and gave rise to numerous and very acrid disputations. As connected with obstetrical jurisprudence, it may be worthy of notice that, by the article 33, 'midwives are forbidden to employ instruments, in cases of difficult labor, without the concurrence of a recognized medical man.'

Three years ago Mad. Durand was treated by 'le Sieur Charpentier, officier de santé,' for a supposed fracture of the carpal ends of the anti-brachial bones. Under this impression, he applied splints and bandages; the limb began to swell, became inflamed, and ultimately gangrenous: the eschars, indeed separated, and the sores healed; but the hand was permanently bent upon the forearm, and the member was left utterly useless to the patient. The consequence of this misfortune was, that the patient was reduced to beggary. After a lapse of three years Charpentier was prosecuted, and amerced to the amount of 4000 francs, 'comme coupable de blessures graves, commises par imperitie ou par imprudence.' [The error committed by M. C. in this case is of very frequent occurrence; we recommend our readers to consult a paper at p. 216 of our last No. where they will find several instances detailed illustrative of this remark. — Rev.]

An appeal was made from this judgment, and Dr. Oliveir was appointed to examine the woman's hand, and report his opinion upon the case: he 'declara qu'une luxation du radius etait un de ces accidens graves qui necessitent, de la part d'un officier de santé, l'appel d'un medecin comme conseil, et que l'estropiement de la femme Durand provenait moins de cette luxation, que de la constriction par les bandages.' [A proof of the strange and anomalous state of the medical profession in France. — To make it truly respectable, all, the officier de santé, as well as the mèdecin or docteur, must be equally educated, and all equally responsible. — Rev.]

The 'affaire de M. Thouret Noroy,' who was lately amerced in a heavy fine, for imputed mala praxis, deserves a short notice. M. N. was so unfortunate as to wound the brachial artery during venesection: an aneurismal varix formed; the patient applied to another surgeon, who, most unhandsomely and most unprofessionally, performed the operation of tying the artery, without ac-

quainting M. N. of it. The operation was unsuccessful; and a gangrenous inflammation having appeared in the fore-arm, amputation of the limb was necessary: the unworthy M. Chouippe was again the operator.

On recovering from these complicated distresses, the patient sued M. Noroy for damages. The tribunal of Evreux awarded 600 francs, and also an annuity of 150 francs to the prosecutor. M. N. appealed from this decision to the 'Cour Royale' at Rouen; but, instead of obtaining what he considered a just redress of his wrongs, the fine was raised from 600 to 1000 francs.

He has now addressed himself to the Royal Academy of Medicine at Paris; but this liberal corps has, with courtier cunning, taken no notice of the appeal.

In consequence of this cruel treatment, a large number of the 'Association des Medecins de Paris' was recently held, to determine what steps should be taken in favor of M. Noroy. The substantial relief of pecuniary subscription was not neglected; and M. Dubois, the Honorary Dean of the Medical Faculty, commenced the list by a noble donation of 500 francs. — *Lond. Medico-Chirurgical Review.*

Medical Fees for public services in France. — When the attendance or report of a medical man is required in any medico-legal case, whether that be of a criminal or civil character, he is entitled to remuneration, according to a certain scale.

There are some extra allowances, when the medical man is required to perform analytical or other scientific experiments, in cases of suspected poisoning, to report on the articles of food, or drink, &c. &c.

It is worthy of mention that medical men in France are entitled to demand remuneration, whenever they are cited as witnesses 'soit devant le juge l'instruction, soit aux debats, a raison de leurs declarations, visites, ou rapports: les indemnités dues pour cette comparation leur sont alors payées, *comme a des temoins*, et leurs indemnités de route doivent etre les memes que celles des temoins.'

We come now to a subject of still more interesting importance to medical men in France, we mean that of certain restrictive or prohibitory laws against their accepting a large donation from a patient during his life, or a large legacy bequeathed in his will. The words of the art. 909 of the civil code are these; 'Les docteurs en medecine, ou en chirurgie, les officiers de santé, et les pharmaciens qui auront traité une personne pendant une maladie dont elle meurt, ne pourront profiter des dispositions entrevifs, ou testimentaires qu'elle aurait faites en leur faveur pendant le cours de cette maladie: sont exceptés, 1, les dispositions re-

muneratoires faites á titre particulier en egard aux facultés du disposant, et aux services rendus; 2, les dispositions universelles, dans le cas de parenté, jusque-au quatrieme degré inclusivement, pourvu toutefois que le decedé n'ait pas d'heritiers en ligne directe; à moins que celui au profit de qui la disposition a été faite, ne soit lui meme du nombre de ces heritiers. Les memes regles sont observées à l'egard des ministres des differens cultes.' But as in many other cases of legal enactment, the prohibitions contained In the preceding causes may be easily evaded: thus a 'donation' may be disguised under 'la forme d'une rente,' and no objections can be made; or it may be bestowed on the wife, children, or parents of the medical men, and it is equally legitimate; and the same holds true 'ou il est etabli que les soins donnés par le medecin l'ont été par suite de l'affection qu'il portait au testateur, et que la liberalité a été determinée aussi par l'affection, que le testateur portrait à ce medecin, bien avant sa mort.

So jealous, however, is the law of medical men exerting an undue influence over the minds of patients, that in certain cases of marriage having been contracted during a professional attendance, the husband has been dispossessed of property which may have been left him by his wife. Thus a Dr. Bonnet, in October 1812, married a widow lady who was then 'malade et gisante dans son lit,' and indeed suffering from a disease in which she died a month afterwards. By the marriage contract, the survivor was made sole residuary legatee of the other's property. The heirs at law of the wife disputed the legality of the contract; the cause was argued at great length before the 'cour royale de Paris,' and judgment was at length awarded against the doctor, on the ground that the 'donations avaient eté faites dans le cours de la maladie dont il la traitait, et dont elle etait decedée. — *Jurisprudence de la Medicine.*

Why are we Right-Handed? — The following are the opinions of Sir Charles Bell on this subject. They are, perhaps, more ingenious than conclusive.

'In speaking of the arteries which go to the hand, it may be expected that we should touch on a subject, which has been formerly a good deal discussed, whether the properties of the right hand, in comparison with those of the left, depend on the course of the arteries to it. It is affirmed, that the trunk of the artery going to the right arm, passes off from the heart so as to admit the blood directly and more forcibly into the small vessels of the arm. This is assigning a cause which is unequal to the effect, and presenting, altogether, too confined a view of the subject: it

is a participation in the common error of seeking in the mechanism the cause of phenomena which have a deeper source.

'For the conveniences of life, and to make us prompt and dexterous, it is pretty evident that there ought to be no hesitation which hand is to be used, or which foot is to be put forward; nor is there, in fact, any such indecision. Is this taught, or have we this readiness given to us by nature? It must be observed, at the same time, that there is a distinction in the whole right side of the body, and that the left side is not only the weaker, in regard to muscular strength, but also in its vital or constitutional properties. The development of the organs of action and motion is greatest upon the right side, as may at any time be ascertained by measurement, or the testimony of the tailor or shoemaker; certainly, this superiority may be said to result from the more frequent exertion of the right hand; but the peculiarity extends to the constitution also; and disease attacks the left extremities more frequently than the right. In opera dancers, we may see that the most difficult feats are performed by the right foot. But their preparatory exercises better evince the natural weakness of the left limb, since these performers are made to give double practice to it, in order to avoid awkwardness in the public exhibition; for if these exercises be neglected, an ungraceful preference will be given to the right side. In walking behind a person, it is very seldom that we see an equalized motion of the body; and if we look to the left foot, we shall find that the tread is not so firm upon it, that the toe is not so much turned out as in the right, and that a greater push is made with it. From the peculiar form of woman, and the elasticity of her step resulting more from the motion of the ankle than of the haunches, the defect of the left foot, when it exists, is more apparent in her gait. No boy hops upon his left foot unless he be left-handed. The horseman puts the left foot in the stirrup, and springs from the right. We think we may conclude, that every thing being adapted in the conveniences of life to the right hand as, for example, the direction of the worm of the screw, or of the cutting end of the auger, is not arbitrary, but is related to a natural endowment of the body. He who is left-handed is most sensible to the advantages of this adaptation, from the opening of the parlor door to the opening of a penknife. On the whole, the preference of the right hand is not the effect of habit, but is a natural provision, and is bestowed for a very obvious purpose: and the property does not depend on the peculiar distribution of the arteries of the arm, — but the preference is given to the right foot, as well as to the right hand.'

No one will fail to acknowledge the ingenuity of the foregoing observations; yet we apprehend that some people will not feel quite convinced by the arguments and illustrations. If the su-

periority of the right side depends inevitably on organization, we cannot conceive how left-handedness could ever obtain. If on the will of our Creator, the difficulty is increased. Are animals right-handed and right-footed? Are not children, from infancy, taught to use the right hand, and put the right foot foremost? It is very true that the two sides of the body are not quite equal in all respects. The right side boasts of a LIVER, — but the left has a HEART, — which is not inferior to its contemporary in many respects. Suppose Adam and Eve had some theoretical or superstitious predilection in favor of the right hand, and their children continued this predilection. Would not the right-hand, in the course of generations, become stronger, — originally from exercise, but ultimately from hereditary disposition? Scrofula must have arisen accidentally: — but see how it is transmitted from parent to progeny. — *Lond. Medico-Chirurgical Review.*

Guaiacum in Ulcers and Syphilis. — In practising among negroes, perhaps the chief annoyances are the obstinate ulcers and eruptions to which they are so liable. I have tried many remedies in such cases, and have perhaps derived most benefit from guaiacum taken internally. This medicine which was at one time so highly extolled, has been retained in the pharmacopœias of Europe, rather perhaps from respect to the older authorities, than from any belief in its efficacy at the present day. Indeed, I am convinced that the resin and dried chips are almost wholly inert. But if the wood be taken from the tree soon after the first rains of the season, when the sap is proceeding in abundance through the vessels, and before it has had time to harden; a strong decoction then prepared in the officinal manner will frequently be found of the greatest service in the complaints for which the decoction of sarsaparilla is still largely employed, and for the cure of which the guaiacum was formerly much praised. With respect to the efficacy of the latter in curing Lues Venerea, there can be no doubt that many or indeed most patients would recover under the method used in Hispaniola, and originally adopted in Europe. But the experiments of late years, especially of the late Mr. Rose, of the Coldstream Guards, have proved that under very spare diet, and almost absolute rest (which formerly were strictly enjoined on those undergoing a course of the decoction of guaiacum,) the venereal symptoms will vanish without the exhibition of any medicine whatever. Still, benefit appears to have been derived from the decoction, and I have no doubt that when employed in the seasons just recommended, it forms a valuable article of the materia medica in climates favorable for the growth of the tree. But that season I fear is short; and my experience hitherto inclines me to believe that it rarely extends beyond three months from the first rains of the spring. — *Jamaica Physical Journal.*

Blue Fever of Children (*Febris Cærulea.* — The disease thus named by M. Goëlis is an affection *sui generis* not hitherto described; it is not to be confounded with the *morbus cæruleus* caused by diseased heart. It is only seen in children from four to twelve months old, and most commonly among the lower classes, who, together with the injestion of coarse farinaceous food, are subject to the mischiefs of damp, unwholesome habitations. The disease always comes on by paroxysms, the children becoming suddenly blue, the respiration difficult, the pulse small, hard, and spasmodic. The paroxysm lasts for some time, disappears and returns: but the intervals daily become less, and the paroxysms finally coalesce. The skin is frequently covered with a viscid sweat, and death takes place suddenly. On dissection, the blood vessels are found greatly congested. Apart from the febrile state which accompanies the attacks, the disease presents all the characters of a nervous disorder; and the remedies that have succeeded the best with M. Goëls are the succinate of ammonia, and other antispasmodics, combined with mucilaginous medicines.

Together with these internal remedies, warm alkaline baths should be used. When we have succeeded in overcoming the spasms, a purgative of calomel or a mixture of rhubarb and magnesia should be administered.

Children are, besides, subject to a peculiar *chronic sweat*, which differs from the sweating sickness in possessing no febrile characteristics. In these cases the skin becomes bluish, and, as it were, transparent. This state can be very well combated, according to M. Goëlis, by the administration of a slight infusion of bark with milk, and by frictions with oil of sweet almonds repeated several times in the day. — *Lond. Med. and Surg. Jour.*

EDITORIAL NOTICES.

Medical Prize Essay.

The proprietors of the Magazine, determined to employ all the facilities which such a journal affords for the encouragement and reward of literary accomplishment in the members of the medical profession, hereby offer a Prize of fifty dollars for the best Medical Essay, consisting of not less than fifteen, nor more than thirty octavo pages, which shall be offered on the following conditions.

1. The subject of the essay may be chosen by the writer, from among the various topics of medical science, literature, practice and ethics.

2. Every competitor must deposite his manuscript with William D. Ticknor, No. 138 Washington-Street, Boston, post paid, on or before the first day of January, 1836, — accompanied with a sealed packet bearing the name and address of the writer.

3. A committee of five disinterested and accomplished physicians will be selected to examine the essays, and adjudge the premium.

4. The successful essay will be published in the Magazine, and a copy of it sent to every medical institution in the United States, bearing the names of the author and of the gentlemen who acted as judges.

5. All the essays offered for the prize shall be at the disposal of the proprietors of the Magazine, who may publish them or any of them, as they may judge best; but the letters containing the names of the unsuccessful competitors shall be destroyed unopened, as soon as the decision of the judges is made.

☞ Our cotemporaries of the medical press, as well as other journals approving the project, are respectfully requested to give the above notice an insertion in their respective publications.

Boston, June, 1835.

The Physiology of Respiration and Chemistry of the Blood, applied to Epidemic Cholera.

A paper under this title has lately appeared in the transactions of the Medical Society of New York, by Dr. Benjamin F. Joslin, which we recommend to the perusal of our readers, not so much for any new views, or very valuable practical results which it presents, as for an illustration of a correct and philosophical method of medical research. An author deserves an ovation, now-a-days, for his independence as well as good sense, in avowing the opinion expressed in the following lines. 'Many diseases depend on a functional derangement of the lungs, unattended by any organic lesion of them.'

If there were any tribunals in our profession like those which pass upon the opinions of theological Doctors, the inquisitors of 'the school' would find themselves somewhat occupied in 'observing' and 'enumerating' the various heresies of method or matter in this very respectable essay.

Massachusetts Medical Society.

Premium for Breeding Leeches.

The subscribers, a Committee for that purpose, by authority from the Massachusetts Medical Society, hereby offer a Premium of Five Hundred Dollars to any person who shall actually, within this Commonwealth, within seven years, breed and produce to the Committee the best sample of not less than one thousand well grown Leeches, from a foreign stock and equal for medicinal uses to the best imported leeches, on the following conditions: —

1. He shall make known in writing the process of breeding, feeding, maturing and keeping the same, to the satisfaction of the Committee of the Councillors appointed for the purpose, that it may be published for the public good.

2. He shall make known in writing to the above Committee all facts which may come to his knowledge, relating to the natural history and habits of leeches so produced, bred and matured from their birth to their arriving at full growth.

Benjamin Shurtleff,
Walter Channing,
William J. Walker.

Medical School in Boston.

The Medical Faculty of Harvard University announce to the public, that the Lectures will begin on the first Wednesday in November, and continue thirteen weeks, after which time the regular course will be considered as terminated. But for the following four weeks, the Hospital and the Dissecting room will be kept open, and some Lectures will be given without additional expense, to such students as may choose to remain.

The following Courses of Lectures will be delivered to the class of the ensuing season:

	Fees.
Anatomy, and the Operations of Surgery, by John C. Warren, M. D.	$15
Chemistry, by John W. Webster.	15
Midwifery and Medical Jurisprudence, by Walter Channing, M. D.	10
Materia Medica, by Jacob Bigelow, M. D.	10
Principles of Surgery and Clinical Surgery, By Geo. Hayward, M. D.	10
Theory and Practice of Physic, and Clinical Medicine, by James Jackson, M. D. and John Ware, M. D.	15

By an additional act of the Legislature of Massachusetts, the opportunities for the study of Practical Anatomy are now placed upon the most liberal footing. While the violation of sepulchres is prevented, it is anticipated that an ample supply of subjects for the wants of science, will be legally provided at a small expense.

The Massachusetts General Hospital is open without fee to students attending the Lectures of the physicians and surgeons. This Institution contains about sixty beds, which are, most of the time, occupied by patients who are subjects partly of medical and partly of surgical treatment. Clinical Lectures are given several times in each week, and surgical operations are frequent. The number of surgical operations during the last five years has averaged about seventy in each year.

To the Medical College is attached a Medical Library, a costly and extensive Chemical Apparatus, and Collections illustrative of Midwifery, Materia Medica, and Healthy and Morbid Anatomy.

Walter Channing, *Dean.*

Boston, June, 12, 1835. ett.

MEDICAL MAGAZINE.

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"Itaque ad experientiæ et scientiæ istius cui inservio normam, mea omnia exigi et probari velim."—WILLIS.

SELECTED ARTICLES.

ART. I.—FATAL EFFECTS OF A SLIGHT WOUND RECEIVED IN DISSECTION.

By CHARLES BENSON, M. D., M. R. I. A.

Read before the Surgical Society of Ireland, Jan. 17, 1835.

ON Tuesday night, the 30th of Dec. last, I was called to see Mr. J. J., whom I had known in the school of our college as a most laborious dissecting pupil. I saw him a few days before, and he appeared to be in high health. His complexion was florid, his temperament sanguineous; this was his first season as a dissector, and he was twenty-two years of age. His brother, also a student in the college, told me on our way to him, that the patient labored under fever, and was anxious and desponding to a degree which the symptoms did not appear to justify.

I found Mr. J. in a very confined room, complaining of excruciating pain in the head, his eyes suffused, his face flushed, the tongue covered with thick yellow mucus, his skin hot and dry, and his pulse above a hundred and somewhat hard. I learned that he was perfectly well on the preceding Saturday, and spent the day, as usual, in the dissecting-room. On Sunday morning he felt a little unwell; however, he got up and ate a hearty breakfast, but soon after complained of headache,

shivering, pain in the back, and sick stomach. He vomited immediately after, and was obliged to go to bed, from which he had not since stirred. His bowels had been freely opened by purgatives; the discharges were dark and offensive, the urine scanty and high-colored.

This young man appeared to me to have taken the fever so common among students in the first months of their anatomical pursuits: a fever occasioned by sudden changes of temperature, by sitting in wet clothes at lecture, &c., and by the absence of the pure air and domestic comforts, which they enjoyed in the country, and at home. I took some blood from his arm, and had his bowels acted on by mercurial and saline purgatives. Next day (Wednesday) I found the symptoms rather worse, he was more anxious and desponding, the tongue more dark, the pulse more frequent, not so hard. The headache was diminished, but he slept none. He had an uncomfortable sense of fulness in the abdomen, though the alvine evacuations were sufficiently copious. He urged me to bleed him again, but as the blood which had been drawn exhibited no inflammatory appearance, I hesitated. The respiration was quite natural; he had no cough; the abdomen was soft, and free from pain on pressure; no symptom indicated general bleeding. As the headache was not quite gone, I recommended some leeches to the temples, a diaphoretic mixture during the day, and five grains of calomel at night. But the relief he had already experienced from bleeding induced him to have recourse to it again, and a few ounces of blood were taken from his arm.

Thursday. He passed a wretched night, sleepless and unhappy, sometimes delirious. The head was free from pain, but giddy and confused; pulse 120; tongue brown; skin and discharges as before. The characters of the fever were now such as to make me uneasy. I questioned his brother minutely as to the causes to which he had been exposed, and as to his previous history. It was then, for the first time, he mentioned that the patient had a slight scratch on one of his fingers, (right hand), and some tenderness on pressing the right side, but as there were no red lines between, and as the scratch was healed up, he said he could not consider that it had any connexion with the existing symptoms. I examined the finger; it presented a little wound, not more than one fourth of an inch long, such as a spiculum of bone might have occasioned, and was nearly healed. The arm and forearm had no discoloration,

neither did he experience pain when they were pressed, but pressure below the axilla, on the pectoral muscle, and about the clavicle, excited expressions of intense suffering. These parts were considerably swollen, yet free from discoloration; neither did they pit on pressure. They were also free from vesications and those little elevations, like cicatrices, which often attend upon dissecting wounds. The symptoms of the fever, however, the sleepless nights, the despondency, the local tenderness, and the rapid pulse, coupled with the existence of the little wound, could scarcely leave a doubt as to the nature of the case on the mind of any one who had read Dr. Colles's papers in the Dublin Hospital Reports.

I had the side stuped with decoction of poppy heads, camphor mixture with ammonia given him during the day, and five grains of calomel at night.

Next morning (Friday) the symptoms generally had become worse, but his side was less painful. The stupes had afforded him great comfort. The feeling of distention in the abdomen made him anxious to be purged, yet the abdomen was soft enough to the touch, and his bowels had been freely acted on all along.

On looking at the finger now I found a vesicle of an oval form, flattened, and nearly empty, as if it had been burst. The little wound lay exactly in its major axis. It contained a very small quantity of whey-colored fluid. There was no unusual appearance in the arm or forearm; nor did the wound made by venesection at the bend of the arm look unhealthy. He had spent the night without sleep, often delirious, but he was less desponding.

My doubts as to the nature of the disease were now removed, and I requested Dr. Colles to see him with me. We met at five o'clock, P. M. The symptoms had not changed since morning. We directed three grains of hydrarg. c. creta to be given every second hour, and agreed to meet at nine o'clock next morning.

Saturday, nine o'clock, A. M. The restlessness, delirium, &c., continued unaltered. The finger and arm were not changed, but the side were much more swollen, and the region of the pectoral muscle more tender. The swelling communicated no sense of fluctuation, nor did it pit on pressure. A slight blush was observable below the axilla, and here it was determined to make an incision. The knife, passed an inch deep, did not give exit to any purulent matter; it cut merely through cellu-

lar and adipose substance which was more serous than usual. A dossil of lint was placed in the wound, poultice applied, and a grain and a half of calomel ordered to be given every second hour.

At five o'clock, P. M., we again saw him. He was much weaker; pulse 133; tongue brown and dry; skin hot and dry; always restless, at intervals delirious. He was ordered to have the calomel only every third hour, and so take four grains of carbonate of ammonia in an ounce of camphor mixture at the same intervals; head to be shaved; cold lotion applied to the temples, and blister to the back of the neck.

Sunday morning, nine o'clock. We were told that he had spent a more quiet night, and was now dozing. On rousing him he recognized me, but not Mr. Colles. The tongue was less dry; the gums a little spongy; the skin moist, except on the legs from the knees down, which were cold and dry. He passed urine and fæces involuntarily during the night; he complained of no pain when asked about it, but shrunk from pressure of the side as before. The lint taken from the wound had a trace of pus on it, but none could be pressed out of the opening. Ordered a little beef tea, and to have his calomel and mixture every sixth hour, instead of every third.

He was dozing and quiet all day. At three o'clock in the afternoon he expired. This was just seven days and a few hours from the time he first complained. How long after he received the wound could not be ascertained, for he knew not when or how he got it, he only knew that it was there on the Friday before his illness, and he went on, as usual, that day and the next dissecting an old half putrid subject with which he had been occupied for weeks. On Sunday he took ill, and on the following Sunday he died.

The body was examined on the following Tuesday, Dr. Colles and some medical students being present. Nothing remarkable was noticed on the exterior of the body, except the swollen state of the right side; the swelling was greatest in the situation of the great pectoral muscle. On raising the integuments from this muscle, the superficial fascia appeared quite healthy; the muscle, too, was free from any morbid alteration, but under it was found a considerable quantity of healthy-looking pus: the pus was not contained in a cyst; it was not limited by any new wall of lymph, nor by the condensation or adhesion of pre-existing structures, but it filled the cells of the cellular substance between the greater and the lesser pectorals.

On pulling the great pectoral up forcibly, so as to tear the cellular tissue, this last resembled tow soaked in pus so strikingly that all present simultaneously made the comparison. How far this purulent infiltration extended could not be ascertained, as we were pledged not to disfigure the body very much.

On opening the thorax the lungs were found perfectly healthy on both sides. In the right pleura a small quantity of bloody serum existed. The heart was healthy, but the pericardium contained more serum than usual. In the head the dura mater was sound; the cerebral layer of the arachnoid was opaque over the anterior lobes, but exhibited no mark of recent inflammation; the substance of the cerebrum and cerebellum was every where healthy, in the ventricles, however, half an ounce of colorless serum was found, but no other sign of disease.

Mr. J. had enjoyed excellent health up to the time of his last illness, except on one occasion, when the bite of a rat in the finger was followed by high inflammation of the absorbent vessels leading to the axilla, and of the glands in that cavity. His illness then was very alarming, and accompanied with severe cerebral disturbance, which may account for the thickened state of the arachnoid.

I have ventured to bring this case before the Society, because the formidable disease of which it is a specimen appears still to be but little understood; at least many questions, as to the nature and treatment of it, suggest themselves, to which I cannot find satisfactory answers. If the members here present would state the results of their experience, I am sure much light would be thrown on points which are now obscure. We want cases; we want a collection of the facts which are scattered among the individuals of our profession. A single case may not be thought worth publishing, and yet I think the want of such single cases is to be regretted. In a disease which does not often come under the observation of any one practitioner it is of importance that what each meets with should be communicated to the profession. A body of materials would thus be formed, from which safe inferences might be drawn. Much has been done by Dr. Colles, Dr. Duncan, and Mr. Travers; much yet remains to be done.

I shall make a few observations on the foregoing case for the purpose of eliciting your opinions.

That it was the same disease by which Mr. Dease and Mr. Shekleton were carried off, I think no one can doubt. The colorless swelling on the front and side of the thorax; the free-

dom of the wound from inflammation at first; the absence of pain, redness, or swelling, in the course of the limb; the appearance of a pustule, or rather vesicle, afterwards, on the little wound; the sleeplessness, the despondency, &c. convinced Dr. Colles and me that the cases were identical. Yet there was one particular in which this case differed from them. The body under dissection was far advanced in putrefaction. It was the last remnant of an extremity with which Mr. J. had been occupied for weeks. I must confess I was not prepared for this. All that I had read or seen of wounds received in dissection, led me to agree with the experienced writer in the *Hospital Reports*, when he says, 'I do not think we have on record a well marked case of this disease having arisen from the dissection of a body in which any of the obvious signs of putrefaction were present.'

As might be expected in a class consisting of 250 young men, most of them careless dissectors, scarcely a day passes without bringing under my notice some scratch, or puncture, or slight incision. When these are shown to me, my first question is as to the freshness of the subject, and, until I met the unfortunate case just detailed, I never hesitated to speak with confidence of the result if the body were many days dead. It is true, that very serious local and general symptoms often follow these wounds, howsoever received, but the *peculiar* disease, so painfully forced on our notice by the death of Mr. Dease, and Mr. Shekleton, could not, as I thought, have its origin from a very stale subject.

The consequences of slight wounds received in the dissecting room, have presented themselves to me under a variety of forms. I have seen;

1st. A small pustule, unattended with much pain, confined to the skin, and disappearing in a few days.

2nd. A chronic inflammation, confined to a point under the skin, causing little or no uneasiness, not suppurating, but leaving a very small hard tumor, which, after remaining many months, gradually disappeared.

3rd. An erysipelatous inflammation around the wound, which slowly creeps along the finger to the hand, and remains for two or three weeks wandering about the fingers, after the wound has been quite healed.

4th. Violent inflammation of the injured part, with intense pain, followed by sloughing of the skin and cellular tissue in the immediate vicinity.

5th. Inflammation of the sheaths of the tendons, as in severe paronychia.

6th. Inflammation not confined to the part, but running along the superficial absorbents. The glands in the axilla suppurate. There is much local and constitutional suffering.

7th. The deep absorbents appear to be engaged. Some red lines may be observed on the hand; we lose them in the arm, and again we find them in the axilla, with inflamed glands going on to suppuration; high fever; intense pain.

8th. Lastly, as in Mr. J.'s case, the constitutional symptoms show themselves before the local. Fever of the typhoid character. No sign of active inflammation in the wound, but a vesicle or pustule often forms on it. Absorbents not inflamed, but there is diffused inflammation and suppuration in the cellular tissue of the pectoral and axillary regions.

This last case heretofore appeared to me to depend on the absorption of a *peculiar* animal poison, generated, in some way, at or about the time of death, and losing its specific virulence when putrefaction occurred. The others, I conceived, arose from an irritating substance of no specific nature, and assumed their different characters from the texture wounded, the irritating qualities of the matter introduced, or still more from the state of the patient's health at the time of the injury, and the peculiarities of his constitution.

We must, however, with this case before us, admit, either that there is no peculiar poison giving rise to this form of disease, or that it resists the changes which, from its animal nature, we would so decidedly expect it to undergo when all around is suffering decomposition. Can symptoms such as his, so different from the other classes stated above, have their origin in a common irritant? How is it that the absorbents and their glands escape, whilst the cellular tissue at a distance, or only remotely connected, becomes so profoundly engaged? Is the active inflammation a cause or consequence of a retardation in the progress of the irritating matter. Again, as to the treatment. What plan is most likely to succeed in cases such as Mr. J.'s? is it the stimulant or the antiphlogistic? When the symptoms are fully developed, Mr. Colles thinks we must place our chief reliance on calomel; I am inclined to agree with him. Mr. J. got it freely, but he died before salivation was produced, and therefore, we cannot judge of its efficacy fairly. His gums were spongy; another day would have thrown light on it. In all cases of dissecting wounds, I advise the part to be well sucked,

and then dipped in spirits of turpentine ; a generous diet, and good air, from the receipt of the injury ; and when a smart inflammation sets in locally, I generally consider the case will end favorably.

Art. II. — The late Epidemic at Dedham.

By James Jackson, M. D.
Professor of Theory and Practice of Medicine.

We extract the following paper from the Boston Medical and Surgical Journal, both on account of its intrinsic merit, and because we are anxious to present to our readers every thing written among us, on this most important disease. In this and the preceding volume will be found the papers of Drs. Hale and Bartlett, which, with the present paper, comprise all that we have seen on typhus fever, as it occurs in New England, for several years.

On Tuesday, March 17th, 1835, Dr. Spear of Dedham was called to J. Thompson, a young woman residing in Mr. Jackman's boarding house attached to Bussey's lower mills, and an operative in the mill. Dr. S. found her affected with fever and sore throat, and, as he thought, some little eruption on the forehead. He regarded the sore throat as similar to that of others with scarlatina, whom he was then attending, and he pronounced this to be a case of scarlatina. The patient mended in a few days, and on Tuesday, the 24th, Dr. S. considered her as convalescent, and left her with cautions not to indulge too freely in eating.

On Thursday, the 26th, Dr. S. was called again to this patient, and found her in the most extreme distress and agony, so that she was unable to give any distinct account of herself. He was, however, led to believe that she suffered most in her head, though she was distressed and in great pain in every part. She continued to be sick, without any well marked local disease, till Sunday, April 5th, when she died. Dr. Spear regarded her case as similar in essential points, to those which are next to be mentioned.

The foregoing statement was, in substance, derived from Dr. Spear on Sunday, April 19th, when I met him and Dr. Stimson at Dedham. I went on that day to the boarding house above mentioned, in consultation with those two gentlemen. I was then informed that, on Saturday the 11th, and Sunday the 12th April, eighteen persons had been taken sick in Mr. Jackman's boarding house.

Dr. Stimson was first called there on the afternoon of Sunday, the 12th, to two young women, sisters, who had been taken sick on the afternoon on the 11th. Their symptoms were nearly the same, — viz. some chills on the 11th, with prostration, anorexy, headache, dizziness, pain in back and limbs, pulse accelerated, rather full than hard. When Dr. S. saw them, their great complaint was that of the head. One of these sisters was the sickest patient in the house, when I saw her on the 19th; and indeed was evidently sinking. Her countenance was sunken, her air abandoned, she was evidently distressed very much, her respiration was irregular, skin cold and moist, pulse 120, very small and feeble; she was delirious, and had been so about twenty-four hours; she could show her tongue, which was dry; she had diarrhœa three days before I saw her; she had two rose pimples; she coughed somewhat, but on percussion the chest resounded well, back and front, and there was nothing unnatural learnt by auscultation, except that her respiration was irregular, and I think there was a blowing (sifflante) râle.

That I may give a connected view of this case, I will add that she died at one, A. M., on the 20th of April, and the body was examined. Dr. John B. S. Jackson and Dr. Charles G. Putnam went to Dedham for this purpose, and made examination in the presence of Drs. Stimson and Spear.

Autopsy, eighteen hours after death, furnished by J. B. S. Jackson.

Externally, very rigid.

Head. — On the upper surface of each anterior lobe of the brain, the pia mater, to the extent of two or three inches square, was infiltrated with a bloody serum, not to any great amount, but enough to give a very decided red color, and to be pressed about easily from one part to another. Beneath this portion of the membranes, which separated readily in consequence of the effusion, several of the convolutions were found to be superficially abraded, perhaps ulcerated, the surface being quite soft, but not discolored; except for this ap-

pearance, and being rather more congested than usual, the brain was sufficiently healthy.

Thorax — Organs healthy. Some dark coagula in the heart, but no lymph.

Abdomen. — *Stomach* flaccid; contained about two ounces of greenish liquid, but no mucus; mucous membrane generally more red than usual, particularly in the small curvature of a part of the left extremity, — in another part of the left extremity there appeared to be cadaveric softening, and towards the pylorus there was 'mamellonnement' to a considerable extent. *Small intestines* rather contracted, especially about the middle portion; some bright yellow viscid fluid in upper part, and some greenish mucus in the lower; mucous membrane healthy till within two and a half or three feet of cœcal valve, and there was found acute disease of Peyer's glands, — about eight or ten diseased patches, regularly getting worse from above downwards; most of these were of a circular form, about half an inch in diameter, much thickened, remarkably well defined, of a light reddish color and firm texture, — the first three or four were not ulcerated, — the rest were so; yellow fæces adhering to the surface; and just on the valve something like a scab appeared to have been detached and hung by one extremity. A large irregular patch was found, as usual, just above the valve, and still above this, another of an oval form, about an inch long and half as broad. There was more or less redness of the mucous membrane around the diseased patches, and proportionately most around the smaller ones. Brunner's glands very slightly affected. *Large intestines* of moderate size; mucous membrane very extensively and acutely inflamed, the whole arch of the colon, sigmoid flexure and rectum being involved. The diseased appearance consisted of an intense deep red color, with some thickening of the membrane, but no softening. There were also extensive and very numerous patches formed by thin layers of soft yellow fæces, forming a strong contrast with the surrounding membrane. The cæcum, ascending and descending colon were not much affected. *Mesenteric glands* opposite the lower end of the ileum were very large and numerous, — deep red externally, but, on being cut through, found to be of a reddish gray color, — very easily broken down, — considerable serous discharge from cut surface on pressure, and in some of them mixed with pus. *Spleen* large, rather firm, not dark. *Liver* light colored; gall-

bladder full of dark green, liquid bile. *Kidney* healthy; bladder much contracted, and containing but little, if any urine.

The other of the two sisters, to whom Dr. Stimson was called, had appeared to be the most sick of the two on the first days, and on the 15th, symptoms of pneumonitis had supervened in her case, though she was then relieved of the distressing pain in the head. The pneumonitis had been shown by cough, viscid and bloody sputa, not copious, and some pain in right thorax. When I saw her I found a sonorous râle there, perhaps some mucus, but no crepitous râle, nor any bronchial respiration; likewise the resonance on percussion was nearly as good as on the left. She had not had diarrhœa. Dr. Putnam saw this patient on the 24th, and then found that on percussion the lower third of the right back was somewhat flat, and in that part he heard a mucous and crepitous râle. He discovered, on examining her, one or two rose pimples and many sudamina. He found also that she had had epistaxis, and tinnitus aurium.

I saw this patient again on the 27th of April, and was told she had grown better to the 25th, when at evening she had sharp pain in left side for a short time, and since then had not been so well. The sputa had been mostly white through the week till then; but since that time they had been red, or some of them, but not copious. I saw one a little red, and two or three rusty, all viscid. There was a sonorous râle in both backs, most in left, but otherwise and elsewhere, physical signs not morbid by auscultation and percussion. Her face was somewhat flushed, or rather her cheeks; her expression dull, almost stupid, but her answers were intelligent, though slow; memory not very good; a little herpetic eruption about left nostril, drying; tongue clean, except at root, where the coat remained; she was thirsty, but also craved food, and had been allowed to suck a little meat; bowels costive, and had been so except from medicine; she had, however, used opiates occasionally, because very wakeful; she coughed often and easily, with a rattling, but did not expectorate often; she was very weak and sat up with difficulty for the examination of the chest; her temperature was moderate, but at times she had been hot; the abdomen was rather full, but not tense nor hard; it was not inspected; on the breast there were two or three rose pimples. On this day, May 8th, I hear from Dr. Stimson that she is decidedly convalescent.

When Dr. Stimson visited these two patients on the 12th, he found several others in the house complaining of some indisposition, different in degree. Within two or three days the number under the care of him and Dr. Spear amounted to eighteen. It was said that all these were taken sick on the 11th and 12th. I saw eleven of them on the 19th, and inquired minutely, so as to be satisfied that this was true as to them. Among these eleven one had felt unwell, without distinct local affection, previous to the present seizure; that one had noticed for a fortnight some headache, diminution of appetite and some diminution of strength. Two others had had symptoms of bronchitis before the present disease, but not with severity. All the others had been well, as they believed, until the occurrence of the present disease on the 11th or 12th. On the 26th I saw two other patients, of whom one had been taken sick on the 13th or 14th, the other on the 18th.

The symptoms at the commencement in the patients, whom I saw and examined on the 19th and 26th, were nearly the same, except in degree or violence. Severe headache, dizziness, some chills, heat, early prostration and anorexy, occurred in almost all of them. In two or three cases only did the patients keep off the bed after the second day, and most of them not after the first. Bleeding and evacuations from the stomach and bowels employed on the first days (the first or second), were followed by relief of suffering, or at least of pain; but extreme watchfulness ensued, and the disease pursued its course. This course was, however, somewhat rapid, so that there were signs of convalescence in some of the cases on the 19th, being on the 9th or 10th day of disease; particularly there was a return of appetite. On the 26th I found that this convalescence had progressed in some of the patients so that they had been removed to another house.

Among these patients I found that the tongue did not become dry and dark colored, except in two or three cases; diarrhœa occurred in only two or three; the abdomen was somewhat full in the second or third week, but not tense, nor generally at all tender to the touch, not even on pressure; several of them had one or two rose pimples or spots, but not of a character strongly marked; in two only were these spots numerous; but it is to be remembered that at my first visit no one had been sick more than eight days, and at my second visit none more than sixteen days; and, besides, I did not examine all the females as to the abdomen. Sudamina occurred

in many of them. Epistaxis occurred in most of the cases in a greater or less degree, but not in any large amount in any one. Dizziness, especially on rising, occurred in most of the patients; a buzzing in the ears also in most of them; deafness in some; stupor, slightly marked in one or two; slight delirium in two or three, but not severe, except in the fatal case already mentioned; faintness, especially on motion, in one. At the time I last saw these patients there were or had been secondary affections in some of the cases, principally a bronchitis; in one a pleurisy; in one a pneumonitis; in one a severely painful affection of the abdomen, with great tenderness on pressure about the umbilicus particularly; and this affection was relieved by full leeching. The pulse was 72 in one case, above 84 in all the others, in one or two above 120.

I will state as many particulars as I was able to ascertain, respecting one patient whose general aspect was as much of what is commonly regarded as typhoid, as that of any whom I saw. This was Olive Butler, a girl, 12 years of age. She became sick on the 12th of April with symptoms like those of the rest. On the 26th I found her lying on her back, with a dingy or rather sunken countenance; lips and teeth dark, with some sordes; tongue dry and rather dark, not thickly coated; mouth sore, had been more so, and with some salivation; this salivation, &c. was possibly from calomel, of which she took one dose as a cathartic, at the commencement of her disease, but there was not any mercurial fetor, as far as I could discover; anorexy; thirst; no diarrhœa; bowels kept open by medicine; abdomen rather full, not very tense, tender on pressure, but equally so in limbs and all other parts; a loose cough, without expectoration; no eruption, neither rose pimples, nor sudamina; pulse 120, small, not hard; temperature moderate, though hot at times; great tendency to faintness, and this on two days in second week so great as to be alarming; greatly prostrated, intelligence not good; stupor some of the time, slight delirium often; sleeps much in day and night.

This girl was regarded as better by the physician and those about her, when I saw her on the 26th of April. And now, on the 8th of May, I hear that she was decidedly convalescent.

Upon inquiry respecting the history of these patients, I ascertained the following from sources the most respectable and trustworthy. 1st. The factory in which they worked is for the manufacture of woolen cloth, broadcloths, &c. It is situated on the Neponset river. The wool employed this season

has been uniformly American wool. 2nd. The wool is picked, washed and dyed (mostly with indigo) at the upper mill. No one connected with that mill was sick with an acute disease. 3rd. At the lower mill the wool is carded, spun and woven. 4th. All the operatives at this lower mill live in the boarding house, in which the sickness occurred; except some married people and perhaps a few of the relations of these people. 5th. No one was taken sick of the fever except in this house. 6th. No one in this house was taken sick except those connected with the mill as operatives. 7th. Of those taken sick, every one had seen J. Thompson, who died on April 5th. Some of them had only seen the body after death; others had seen her once or more whilst living; two or three had watched with her in the night; the nurses, who had attended her, had not become sick so late as the 26th of April, though these nurses were operatives in the mill, and left that to attend to her. 8th. The persons who had the fever, had lived in Dedham and been engaged in the mill for various periods of time. Some of them had been there three or four years, others a year, others a few months or weeks. One who had been there a year or more had been absent a part of the time, and had returned within a month before the occurrence of the sickness. A boy (Bacon) who was among those first taken sick, had entered the mill on the 25th of March of this year, and had never before resided in the town. His mother, who was also in the mill, had been there a year, and she was taken sick at the same time. 9th. The house in which the sickness occurred contained at the time about fifty-eight inmates of all descriptions. It was essentially clean, and I was assured that on examination nothing offensive was found in the cellar nor surrounding it. 10th. On the path from the house to the mill nothing could be pointed out as offensive except a stye, which contained six hogs, nor was this peculiarly so. 11th. The house had been built as a boarding house for the operatives, and was first inhabited in January or February, 1827. It had frequently had from eighty to ninety inmates, being very large. The agent had, however, taken pains to reduce the number, and it was not considered as at all crowded this spring. The inmates of it had always enjoyed good health till now, and till now there had never occurred a death in it since it was erected.

These are the facts as they existed when the foregoing was written. This day, May 8th, I am informed by Dr. Stimson that since my last visit 'one other female has been taken sick,

evidently with the same fever, by the name of French, not an operative in the mill, but a domestic in Mr. Jackman's boarding house.'

It appears that most of the patients are now mending; one is not yet free from bad symptoms; and one is in a state of great danger. This is one of the patients first taken, on the 11th or 12th of April, and was the most sick of any whom I saw at my second visit.

ORIGINAL ARTICLES.

Art. I. — Simple means of detecting certain Poisons.

By C. T. Jackson, M. D.

[Communicated for the Medical Magazine.]

It is a fact generally acknowledged by physicians, that few practitioners of medicine are sufficiently familiar with chemical operations to ascertain by experiment, the nature of poisons and other powerful medicinal substances. This is owing partly to the very short time employed in the study of the profes sion. The student seldom devotes more than three years to the study of his profession, and on account of its numerous branches, he is not able to bestow so much attention to chemistry as would be requisite to inspire him with a taste for its pursuit, and continuance in its cultivation, after he has received his degree of doctor of medicine. When he engages in practice, he either is so situated as to preclude him from engaging in an experimental course of chemistry, or he imagines the study to be so very intricate that he despairs of ever being able to thread its mazes without an instructer, and the use of an extensive laboratory for experimental research.

There is also a mistaken opinion among many physicians respecting the value of chemistry to the practitioner of medicine. They say the operations that take place in the body are not of a chemical nature, and the effects of medicines are not chemical, but differ altogether from the action that takes place out of the body, and the combinations are made in direct opposition to chemical laws. This may be partially true, but it is also certain, that many of the functions of the body

are of a chemical nature, and chemical combinations do frequently take place in the stomach in spite of the laws of vital affinity, as well as in conjunction with them. Many of the vital affinities, as they are called, and their products, are identical with those which take place out of the body. Does any difference exist in the action of the alkalies potash and soda, or of magnesia, on the contents of the stomach, whether they are in or out of that organ? The same combinations do certainly take place, however they may be afterwards resolved in the course of circulation. Are not the phosphate and carbonate of lime, which exist in the bones, identical with the same substances out of the body? Does not the alkali soda in the bile, neutralize, by its chemical combination, the muriatic acid of the gastric fluid, and precipitate the feculent matter, just as would take place were the chyme so treated out of the body?

These and numerous other examples might be given, to show to the satisfaction of every reasonable man, that chemical combinations do frequently take place in the body, just as they take place under other circumstances. How far the nervous action in the body resembles the effects of electric currents, as produced by artificial means, is yet a subject of inquiry; but there are some striking analogies in their action. When a solution of muriate of soda is exposed to the action of a current of galvanic electricity, we see it separated into its two components, muriatic acid, which goes to the positive pole, and soda, which goes to the negative. We take muriate of soda in our food, and we presently find muriatic acid secreted in the gastric fluid, and soda in the bile. Electricity produces in the nerves of a recently dead animal the same muscular movements that are effected in life; and where the pneumo-gastric nerves had been divided in a living animal, digestion was arrested, and when a gentle current of electricity was sent through the nerves towards the stomach, digestion went on, as if the nerves were still undivided. It is surprising that direct experiments are not instituted to ascertain if there really be a current of electricity moving in the nerves. I never heard of but one experiment on this point, and that was related by a student of medicine in Paris, in his medical thesis. He declared, and his testimony was confirmed by an *agrégé* professor, that when the sciatic nerve of a dog was divided, and the two extremities were brought into contact with the wires of the galvanometer, the needles deviated, indicating a current of electricity. This experiment, however, deserves repetition, with suitable precau-

tion against error. We know that electricity is secreted in the nervous apparatus of some animals, as in the torpedo, electric eel and the ray fish. I have made the foregoing remarks, not only to prove that chemical action and changes greatly resembling its combinations take place in animals, but also to propose some subjects for the researches of chemical physiologists.

It will be seen that chemical action does take place in the body, more frequently than the vitalists are led to believe, and that combinations of a violent character are sometimes produced. No one requires a knowledge of chemistry more than the practitioner of medicine; for he is continually compounding articles that undergo remarkable changes by their combination, and if he dares to form an original compound, he runs the risk of producing either an inert or powerful medicine, altogether different from what he intended to administer. The history of medicine, and the prescriptions that may be found at the apothecaries' shops in every part of the country, amply illustrate what I have said. Anatomy is acknowledged to be the basis of a good medical education, and I believe that chemistry is still more indispensable to the practitioner, for he has more frequent occasions for its application; whereas, excepting in surgical cases, he is rarely called upon to exercise his anatomical skill. These remarks are made with the utmost respect for the faculty, and no one can have a more exalted opinion of the learning and talents of the physicians of this vicinity than myself, but I am anxious to point out what may be considered a desideratum in the medical education of professional gentlemen throughout our country.

It is well known, that in France great attention is paid to the education of medical students in chemistry, and that they are made familiar not only with the theory, but the practice of this science, and undergo the most severe examinations in chemistry, and its applications to pharmacy and medicine, before they are admitted to examination in other branches of medical science. With us, this study is generally neglected, and no account is made of it, if the student does not prove himself grossly ignorant of its principles. This ought not to be allowed. The dignity of the profession is degraded by every ignorant graduate it allows to enter into the field of practice, and the apothecaries' boys laugh, as they put up his unskilful compounds.

Many physicians and apothecaries imagine they can distinguish all medicines by their external appearance, color, weight, taste and smell; and think it unnecessary to make experiments of any kind, in order to recognise them. I have often been deceived myself, and have seen others, who prided themselves on their discrimination of medicines, greatly at fault in the recognition of the most common medicinal articles. Calomel, for instance, is generally in solid masses, or in a powder of a perfectly white color, without any taste or smell, and very heavy; but what would a person say, if this substance were presented to him in flakes as white, delicate, and light as snow, or in thin transparent crystals, with a brilliant glossy lustre? or suppose the substance were presented to him as a dirty grey or brownish powder, could he recognize it as calomel? Are there many physicians who could distinguish, at sight, calomel in powder from white oxide of arsenic? or who would be able to identify tartarized antimony in its crystallized and pulverulent form?

If these articles, which are so common and of so frequent use in medicine, cannot be recognized by the senses in their pure form, how much more difficult, nay, impossible it will be, to distinguish them when mixed with other substances! It is necessary then, to resort to chemical experiment to determine their nature. It is a common practice with some apothecaries to mix or roll up pills of calomel with magnesia, and these pills, after being kept awhile, undergo chemical changes; thus I have seen, pills of this kind, which had been carried to sea, on being returned, changed into muriate of magnesia and oxide of mercury, very different substances from what they were intended to consist of. I have seen in a prescription, a solution of sulphate of zinc mixed with a large proportion of carbonate of lime or prepared chalk. This, of course, made a very harmless 'solution,' for it contained nothing but water, although no doubt the physician thought he was administering a tonic combined with an antacid. Amusing accidents sometimes happen like the following. A physician ordered for a poor woman a strong solution of acetate of lead for a wash, to be applied to a cutaneous eruption on the leg, and a solution of sulphate of magnesia, to be taken as a purgative. She mistook the vials, and drank the wash and washed her legs with the salts. The physician on being apprised of the fact, called upon me to know what was to be done, as he apprehended troublesome symptoms from the quantity of lead she had taken. I advised him to give the remaining Epsom salts, as I heard that there

was a large quantity of it in solution, which had not been used up, and to give himself no uneasiness, as the acetate of lead would be at once converted into an insoluble sulphate, and the excess of salts would effectually remove it from the body. The advice was instantly complied with, and no unpleasant consequences followed.

Thus we may often, by a knowledge of chemical affinity, neutralize poisons, and render them perfectly inert. The physician not unfrequently finds with his patient a quantity of quack medicines of which he does not know the nature, and the patient suffers from symptoms of a singular nature. By a knowledge of the chemical properties of medicines, he may often, by very simple means, ascertain in a moment, the nature of the medicines that have been taken, and his treatment would be directed accordingly.

Fortunately, most of the powerful medicines have strongly marked characters, by which they may be recognized by subjecting them to experiment.

Many of the mineral poisons may be tested with no more complicated an apparatus than a piece of burning charcoal; and although the evidence may not be sufficiently satisfactory to convict a person in a court of law, of poisoning, yet it may be sufficient to guide the practitioner of medicine in his treatment, or to lead to the detection of the guilty. A portion of the suspected substance being at the time carefully preserved for examination by a skilful chemist, whose analysis might then become important, and would be a check upon the test used by the physician, to confirm or refute his opinion respecting its nature. Poisoning will become more and more rare as the public learn that chemists have such certain means of detecting the guilty, that even the grave does not conceal the crime, and that in many cases the dead do 'tell tales' which bring the guilty to justice. Arsenic is known to possess antiseptic properties, so as to preserve the stomach long after every other part of the body has decayed; and in some memorable cases which occurred in France and in England, the poison has been discovered, and the offender brought to trial, when he least thought of detection. The stomach, in these cases, yielded by chemical analysis, the most positive proofs of poisoning by arsenic. Every physician should be able to detect this and other poisons. It is a duty he owes to himself and society, who look to his knowledge for health and safety.

[To be continued.]

COLLECTANEA.

Some Observations suggested by the Returns to the Statistical Inquiries of the College of Physicians. By William Macmichael, M. D. — Of all subjects calculated to occupy the attention of the physician, none seem more important than the history of the origin of new diseases, or the first introduction of complaints well known in old countries into regions hitherto unvisited by them. Immediately connected with this subject, are the circumstances which attend the gradual disappearance of different savage races of the human species, occasioned, sometimes, by the pernicious habits adopted by them from other people, or in various ways, by the baneful approach of civilization towards these unsophisticated creatures. The most striking examples of this sort are, perhaps, the recent appearance of cholera in the western parts of the world, and the fatal introduction of the small pox amongst the Indians soon after the discovery of America. Examples of a similar nature, though it must be allowed upon a smaller scale, are to be found among the returns that have been made to the statistical inquiries of the college, which were sent three or four years ago to foreign countries.

The complete extinction of the aborigines of Newfoundland is one of these instances which has occurred in our own day, and is related by Dr. Carsen, physician to the governor of the colony. A few words will suffice to give the early history of this island. Cabot, who first visited it in 1499, landed at Bonavista, where he saw several natives, dressed in the skins of animals, and rather above the middle stature; they appeared to be of a gentle and docile character, and their bodies were thought to be painted red. The skins with which the natives were clothed held out an inducement to the English furriers and Esquimaux hunters, and they were pursued, shot, and massacred, with as little remorse as if they had been foxes and wolves. Driven from the sea-coast, where they had usually obtained their summer supply of food in eggs, fish and fowl, they became exposed to the destructive consequences of famine, and rapidly decreased in number. In 1811, the whole population of natives in the island was not conceived to be more than one hundred and fifty. The description of them at this time is, that they were tall and well formed, of a dark reddish complexion, jet-black hair, with the exception of one fair female with flaxen hair, resembling in general contour a native of France. Their vicissitudes of life exposing them alternately to starvation and repletion, with the severity of the climate, rendered them peculiarly liable to inflam-

matory attacks, particularly of the lungs, which terminated in consumption. At 50 years of age, they appeared to be in a state of decrepitude. Four females, of a tribe described by Dr. Carsen died of pulmonary consumption. Since 1811, the tribe is known to have been exposed to great fatality; and it is a question whether there is an individual of them now in existence. A female, most probably the last of her race, died in the town of St. John's in 1829. She was tall, strong, and well formed, and about 28 years of age; of an amiable disposition, tractable, high-spirited and proud; she felt most keenly the slightest degradation. I examined her body, says Dr. Carsen, after her death: her skull exhibited a peculiarity, — the parietal bones were divided in the middle by sutures running parallel with the sagittal suture, and extending from the lamdboidal to the coronal suture. Dr. Carsen has been so obliging as to present the skull and the scalp to the College; they are now lying on the table. This peculiarity is not without example, as they are in the habit of exhibiting at St. Alban's a skull, said to be that of Humphrey, Duke of Gloucester, in which a similar variation of the ordinary structure may be observed. Thus has disappeared, in this part of the world, every individual of that peculiar race which has been called the American variety of man, characterized by a tan color, or cinnamon brown, like the rust of iron or tarnished copper, with a straight, coarse black hair, with a wide, though not a flat face, and strongly-marked features, — a description which it may be remarked, comprises all the natives of this part of the world, except the Esquimaux.

To illustrate another portion of this interesting subject, we are informed, in return from Dr. M'Leod, Deputy Inspector of Hospitals in New South Wales, that hooping-cough was first introduced there in March, 1828; it was brought by the convict ship Morley, made its appearance in Sydney, and then spread over the whole colony. The same intelligent physician observes, that it is singular that in this country phthisis pulmonalis is much more frequent than, from the mildness of its climate, might be expected; and that it is more rapid in its course than in England. The black natives of New South Wales who have not been debauched by their intercourse with Europeans, seem to attain a good old age, — 80 or upwards. Of the colonists, many men and women are now living, above 70 years old, who are capable of field labor, and of going long journeys in the woods.

Dr. M'Leod says that no aboriginal native of New South Wales has ever been subjected to vaccination. Vaccine lymph has been several times introduced from the Mauritius; but it has always been lost from the prejudices of the colonists in bringing forward their children, and from there being no institution in the country for the express porpose of propagating it.

Lymph sent from England has never once succeeded. Now every convict ship sailing from England is supplied with a quantity of lymph, carefully packed up in bottles, hermetically sealed, from the Vaccine Board, but, according to the experiments of Dr. Henry of Manchester, though vaccine matter is not destroyed by a temperature of 120° Fahrenheit, it is rendered totally inert by exposure to that of 140°: and it must be some such cause which renders the lymph from England powerless.

One cannot but pause here to reflect upon the facility with which the great scourges of mankind, as the plague, the small-pox, and, as we have lately seen, the cholera, spread over the surface of the earth, as contrasted with the difficulty experienced in transmitting an antidote to one of them, — viz. the salutary practice of vaccination from Europe to the East.

Two or three years sufficed to carry the cholera from the East Indies, by the Caspian Sea, into Russia, England, and then across the Atlantic into North America; but it was not till after several failures that a means was discovered of sending the vaccine lymph to India.

In 1800, a physician of Vienna, Dr. Carro, sent some vaccine matter, on English lint, inclosed between glasses; and when he had properly secured them, he dipped them at a wax-chandler's till they formed a solid ball, which he placed in a box filled with shreds of paper. The packet reached Bagdad on the 31st March, 1802, its contents were still liquid, and succeeded on the first trial. From Bagdad it got to Bombay before the end of June of the same year. The precautions used on this occasion were rendered necessary, to obviate the accidents of a long journey, in a climate heated by a scorching sun.

Before the end of the year 1802, the benefit of vaccination was fully established at Calcutta; and to recommend the practice to the Hindoos, it is amusing to be told, that the peculiar circumstance was emphatically dwelt upon, that this wonderful preventive was originally procured from the body of a cow, — an animal, as is well known, which is held in great veneration by them.

From the same documents to which I have alluded, — viz. the Returns to the College Inquiries, we learn that the natives of Van Diemen's Land bleed by cutting the angles of the mouth, lips, gums, by drawing across them rough sharp grass; that they cure rheumatism by pricking the body with sharp shells, or wood, in fact, by a kind of acupuncturation. Diarrhœas they treat with kino; and they suck the wounds occasioned by the bites of serpents; dilate them, and introduce therein combustible matters, which they burn like moxa. — *Lond. Med. Gazette.*

The Physicians of the French Revolution. — Among the professions that were particularly active in the revolution, the lawyers and medical men were especially distinguished. And though the latter did not possess the same influence as the lawyers, they nevertheless played a remarkable part in the stormy scenes of this stupendous event. Many of them entered into the hazardous career which had raised the lowest citizen to power and renown. Of some of them the names are engraved on the iron page of history; others are lost in the names, committees, directories, &c. Among the former are found, though in widely different degree, and with widely different principles, Marat, Guillotin, Chambon de Montaux, Barthez, Le Hardy, Lanthenas, Guiton-Morvaux, Cabanis, Baudat, Bo, Bousquet, Du Gers, Cledel, Eubouchet, Thery, Fourcroy, Lavoisier, Pelissier, Plaichard Chattiere, Taillefer, &c.

Who has failed to hear the character and fate of John-Paul Marat? Every one knows that he was strangled in a bath in the Rue du Paon by a young and beautiful girl, that his body was conveyed to the Pantheon, and afterwards, at the commotion of Thermidor, thrown into the common sewer: that after burning his effigy, the ashes of the figure were placed in a chamber-pot and cast into the Montmartre sink. But it is not equally well known that Marat, previous to the time when revolutionary ideas so violently took possession of and agitated his mind, was of a mild and peaceable temperament. Then he was devoted to science, and ten or twelve works proceeded from his pen, which were not without merit; witness his 'Traité de l'Homme.' Though born in the neighborhood of Neuscatel, in Switzerland, Marat practised his profession in Paris; his name is seen inscribed in the books of the Faculty of Medicine for the year 1785. At that time he lived in the Rue de Bourgogne, and was for some time attached to the Guards of the Duc d'Artois, since Charles the X. Marat was a thick short man, with a vulgar countenance, traversed with the restless expressions of envy and pride, a countenance that gave evidence of a low uncompromising ferocity; withal his stature was unattractive and his manners inelegant. Yet his language and style were in singular contrast with what he always had hitherto been. Who could fancy the same man in the author of the 'Treatise on Medical Electricity' and the editor of that journal of horrors, *l'ami du Peuple*? Marat was certainly insane: the scent of blood drove the old puritan of the Mountains partly from his reason!

Very different from this fiery demagogue was Joseph Ignatius Guillotin the deputy from Saintis. Mild, benevolent, the sincere friend of humanity, he sought only to be useful to his species, even when he invented the fatal instrument which bears his name. When the legislative assembly had determined that there

should be but one kind of mortal punishment, and that it should be decapitation, Guillotin labored unceasingly to find the means of rendering the last moments less painful. So occupied was he with the subject, that he was continually repeating to his friends and colleagues, 'With my instrument I will take off your heads in a twinkling, and without the slightest suffering.'

While the name of Columbus was never attached to his vast discovery, that of Guillotin could never be detached from his invention. Guillotin lived many years after the date of his discovery; nothing pained him more than the mention of his instrument, and horrible recollections shook him when, as sometimes happened, some mischievous fool addressed him with 'Why, doctor, how come you to have escaped, — you know *what* death?' He died in 1814 of a large carbuncle on the left shoulder. His *confrère*, Bourru, delivered his funeral oration, the same Bourru who, in 1793, *re-baptized* his two sons, and called one Hippocrates and the other Galen. — *Lond. Med. and Surg. Journal.*

New Method of Effecting a Radical Cure of Hernia. — M. Gerdy proposes, 1. to push forward with the finger the skin, getting it over the finger like a glove, intruding it into the herniary aperture and canal.

2. To fix the extremity of this intruded sacciform process of skin to the anterior parietes of the herniary canal, by several stitches.

3. To inflame tne cavity of this sac by ammonia, in order to establish adhesions between its surfaces, and thus obliterate the cavity.

4. To assure success by closing the external orifice by a few stitches.

This operation is but slightly painful, may be performed without making any incision, and closes the herniary orifice and canal with solid flesh. The adhesion was complete on the seventh or eighth day, in a patient on whom M. Gerdy operated on the 12th of March, and who is now quite cured of the hernia. He operated in a similar manner on another patient on the 27th of March. — *Lond. Med. and Surg. Journal.*

Water for the Preservation of Dead Subjects.

Common salt and alum, of each	33 ounces.
Saltpetre	15½ "
Water	6 gallons.

Vaccination in 1833*; from a Report of the Royal Academy of Medicine, Paris.* — At the close of the year 1828, vaccination began to be much neglected in France, and the number of vaccinations from that time rapidly diminished every year. But at length the Academy of Medicine, that enviable and valuable association, justly alarmed at the facts which became apparent, and the prospect which was before the nation, put into operation every available means which were calculated to renew the national impulse in favor of vaccination. These efforts were seconded by the government, and the happiest results have followed. In sixty departments where the small-pox had entered through a multitude of avenues, the disease has generally been arrested in its progress or checked in its development.

The documents transmitted to the Academy of Medicine from all parts of France are of a nature to confirm several points in the history of variola which are generally admitted, and throw light upon others which are still undecided. Thus they fully confirm the two following propositions : —

1st. That wherever vaccination has been properly kept up and encouraged, small-pox is rarely observed and easily suppressed at the time of its appearance.

2nd. That vaccination is the only infallible means of opposing the ravages of variolous epidemics.

The question of the duration of the powers of vaccine matter as a preventive, has lately been debated amongst medical men with much difference of opinion. The subject is one of great difficulty, and requires a more extensive investigation than it has hitherto received.

Several physicians in France, who have been extensively employed in vaccinating during a period of thirty years, have never observed the small-pox, or been able to produce a second vaccination, in any individual whom they had vaccinated. This fact is the more remarkable, as one of the physicians alluded to, M. Barry, had succeaded in reproducing the disease seventeen hundred and eight times, without interruption, from the same stock of matter, — that is to say, from one single vaccination. Some contrary facts, however, seem to have been observed in the department of the Gironde. Small-pox broke out sporadically in 1833 at Bordeaux. During the summer of the same year it became epidemic, and attacked several persons who were reported to have been vaccinated: the Council of Health, by order of the prefect, examined these cases with the utmost attention ; many exhibited slight traces of vaccination, but the Council was unable to verify a single case upon which no doubt rested.

The Council proposed the following question to the practitioners of Bordeaux :—' Amongst the patients whom you have vacci-

nated, and on whom you have observed the regular march of the cow-pock, has any one afterwards demanded your assistance for the small-pox?' All answered in the *negative*, and M. Lamothe, ex-director of the vaccine-depot, who, since 1810, had vaccinated 20,000 abandoned children, and 2450 in his private practice, affirmed that amongst that very considerable number, he never afterwards met with a single individual exhibiting the real characters of small-pox. This fact is also well worthy of record.

A practical question of very great importance in the history of varicella is this, — 'Can we at all reproduce the cow-pock so as always to have a sufficient stock of vaccine virus at hand; and has the efficiency of the virus diminished, as many have affirmed, within the last few years?' Previous to 1825 the varioloid rarely attacked individuals regularly vaccinated, or at least this phenomenon had not been observed and recorded; hence some conceive that so many successive transmissions have deteriorated the vaccine virus. M. Fiard has made a great number of experiments upon this part of the question. He argues that if the virus were not degenerated, it ought to possees the property of being transmitted from man to the cow and *vice versa*, equally now as when introduced into France. At the commencement of the present century the transmission of virus from man to the cow, and *vice versa*, frequently succeeded; but latterly M. Fiard was able to inoculate only six or seven cows of seventy upon whom he experimented; in addition to this the eruption was excessively feeble, and the matter when re-inoculated on children never produced any effect.

The experiments just alluded to were made in the years 1824 and 1825. In 1823 M. Fiard received some natural cow-pock matter from England: he immediately inoculated some cows with this matter, and endeavored thus to form a depot of the virus; but all his attempts unfortunately failed. It is worthy of remark that all the cows inoculated by M. Fiard were exempt from the fever which affects the animals in whom vaccine is developed naturally. The researches of M. Fiard tend to show that the natural cow-pock is as difficult to find in France as in England. A peculiar eruption, bearing some resemblance to the cow-pock, and attacking the teats, is frequently observed, but this is not the varicella; on the contrary, the latter disease, though sought for diligently in all parts, has not been found in a positive manner.

If the natural cow-pock then be so very scarce, it becomes a matter of great practical importance to see whether we cannot provoke its development. Three opinions exist as to the origin of the vaccine virus in its natural state. Jenner considered it to be derived from a disease peculiar to the horse, which, in being communicated to the cow, becomes cow-pock. Robert, of Mar-

seilles, regards it as the result of small-pox inoculated in the cow. Finally, others think it a disease peculiar to the cow. In 1833, experiments were made at Alford by M. Cirard, member of the Academy, aided by the director of the school, with the object of verifying those announced by Dr. Sunderland. It is unnecessary to detail these experiments at length. The linen, &c. which had served several small-pox patients at the Hotel Dieu, was placed in contact with the bodies of six cows, a dog, and a pig, for a period of time varying between twenty-four hours and seventeen days. The animals were also inoculated with the variolous matter contained in the linen. The cows exhibited no trace of secondary affection; and the dog and pig also resisted, although these latter animals easily contract the disease by direct inoculation. The cloth containing the variolous matter was thrown out into a court containing a number of other pigs, and torn in pieces by them. After a lapse of twenty-three days all the animals were attacked with an eruption exactly similar to the natural small-pox of the pig, and passing through its four periods. Experiments of a similar nature were made at the same time on cows and sheep in a different quarter: not one caught the disease.

From the facts which we have just exposed, it follows, 1st, that the natural cow-pock is a disease extremely rare; 2nd, that in any case of urgent want, it would be extremely difficult to procure cow-pock either in England or in France.

In spite of the want of success which has hitherto been experienced, the Academy of Medicine does not consider the question as determined, and therefore proposes to all friends of science and humanity this important problem, 'Can we by any means re-produce the vaccine virus at will?' — *London Lancet.*

Monomania. Sedative Treatment, with Remarks by Dr. Elliotson. — Richard Carter, aged forty-six, was admitted under the care of Dr. Elliotson, a short time since. He had been deranged for some time; he has had syphilitic pains in the bones which might have been the predisposing cause; he was despondent, and exceedingly apprehensive; he thought he was injured and ruined by others, and his constitution was destroyed by medical men, and he had great fears with respect to a future state; it was evidently a case of partial insanity.

Usually, in cases of this description where there is no heat or tendency to inflammation in the part affected, the treatment is moral; to cheer the spirits of the patient has been considered the proper plan of proceeding. In this case there is no doubt that a particular portion of the brain was affected, though there was no pain; no flush of the face, but on the contrary a pallor,

his pulse was low, no indication existing for bleeding, purgatives or any species of antiphlogistic treatment. It had been found in cases of this description, that narcotics which do not irritate, have been highly beneficial; Dr. Seymour read a paper before the Royal Medico-Chirurgical Society a short time since, in which he had stated a great number of cases, in which he had treated successfully by sedatives, in an establishment with which he is connected in Bethnal Green. This man was ordered half a grain of the muriate of morphia twice a day, it did him considerable good, and in a few days the deranged notions entirely left him. All the cases Dr. Seymour treated, were of partial insanity or monomania.

Opium, it is said, frequently stimulates, and is therefore unfit for general use; but chemists have now so modified its different preparations that we can place great dependence on them. Whatever part of the brain is affected the treatment will be the same. — *Lond. Med. and Surg. Journal.*

Value of Adroitness in the mental management of Patients. — Sir Humphrey Davy in early life assisted Dr. Beddoes in experiments on nitrous oxide. Dr. B. inferred it to be a specific for palsy, and selecting a patient, committed him to Davy for experiment. Before administering the gas, Davy wished to ascertain the temperature of the patient's body, and for this purpose introduced a thermometer into his mouth. The paralytic was ignorant of the remedy employed, but impressed with the certainty of its success, no sooner felt the thermometer between his teeth, than he concluded the talisman was in operation, and in a burst of enthusiasm, declared he had already experienced its benign influences over the wholy body.

Davy determined to profit by the hint, and by pursuing the plan a fortnight, the patient was absolutely cured.

Quacks avail themselves of this resource, and why should not physicians operate on the imagination, or by moral treatment in the same way?

Baglivi says, 'I can scarcely express how much the conversation of a physician influences even the life of his patient and modifies his complaints. For a physician, powerful in speech, and skilled in addressing the feelings of a patient, adds much to the power of his remedies, and excites so much confidence in his treatment as frequently to overcome dangerous diseases with very feeble remedies, where more learned doctors, languid and indifferent in speech, could not have cured with the best remedies man could produce.